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THE NATIONAL HIGHWAY SYSTEM AND ANCILLARY ISSUES RELATING TO HIGHWAY AND TRANSIT PROGRAMS

(103-54)

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The National Highway System and Anc...

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BEFORE THE

SUBCOMMITTEE ON
SURFACE TRANSPORTATION

OF THE

COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

FEBRUARY 24; MARCH 1, 3, 8, 10, 15, 1994

Volume II of V

Printed for the use of the Committee on Public Works and Transportation

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HEARINGS

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THE NATIONAL HIGHWAY SYSTEM AND ANCILLARY ISSUES RELATING TO HIGHWAY AND TRANSIT PROGRAMS

THURSDAY, MARCH 3, 1994

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION,
SUBCOMMITTEE ON SURFACE TRANSPORTATION,
Washington, DC.

The subcommittee met, pursuant to recess, at 10:10 a.m. in room 2167, Rayburn House Office Building, Hon. Nick J. Rahall II (chairman of the subcommittee) presiding.

Mr. RAHALL. The subcommittee will come to order, please.

The subcommittee is meeting today to continue its series of hearings on the proposed National Highway System and Ancillary Issues Relating to Highway and Transit Programs. After receiving testimony from Federal, State and local government officials over the last two hearing days, today we will be hearing primarily from witnesses who represent private sector organizations with an interest in the National Highway System.

We will also hear from some of our colleagues and former colleagues on this side of the aisle but before introducing them, I will recognize the Ranking Minority Member, the gentleman from Wisconsin, Mr. Petri.

Mr. PETRI. Thank you very much, Mr. Chairman.

We have an ambitious agenda today as we continue our series of hearings on the National Highway System. In addition to various testimony regarding the system, we will also consider a variety of issues, many of which have been controversial since ISTEA was passed in 1991.

I would like to join you in welcoming today's witnesses. I would like to particularly welcome the representatives of the Tavern League of Wisconsin who will be testifying later today and our colleagues from Colorado and Maine who are before us right now. I look forward to your comments.

Mr. RAHALL. We will proceed with our witness list. The first is a panel consisting of the Honorable Olympia Snowe, our dear colleague from the State of Maine, and the Honorable Ben Nighthorse Campbell, a former colleague of ours in the House who has now gone over to that other body. Ben and I happened to serve on the Interior Committee together while he was here and it is indeed an honor to welcome both of you for a repeat performance before our subcommittee.

Olympia, Ben, welcome, and you may proceed as you desire.

TESTIMONY OF HON. BEN NIGHTHORSE CAMPBELL, A U.S. SENATOR FROM COLORADO; AND HON. OLYMPIA SNOWE, A REPRESENTATIVE IN CONGRESS FROM MAINE

Senator CAMPBELL. Thank you very much, Mr. Chairman.

Olympia and I have fought a lot of battles together and we are here to fight one more.

I might mention that I have a complete written testimony and with your permission, I would like to introduce that into the record and try to abbreviate my comments a little bit.

Mr. RAHALL. Yes. Without objection, all witnesses' prepared testimony will be made a part of the record today as if actually read. You may proceed as you desire.

Senator CAMPBELL. Thank you, Mr. Chairman.

We have talked about the issue of mandatory helmet legislation before and have heard a number of arguments on both sides of the issue. You are going to hear a number of comments today on both sides. Unfortunately, a lot of times the debate centers around whether we should or shouldn't have people wear helmets when they are riding motorcycles. To me, that has never been the issue. I have always believed it is a matter of choice. I think the real questions we need to ask is not whether people should or shouldn't wear helmets, but should people be forced by government to do so, and should the Federal Government, in an attempt that I call blackmail, force States to pass mandatory legislation. If the Federal Government does force the States to pass legislation requiring helmet usage, will they also ask for similar legislation requiring skiers, horseback riders, bicyclists, mountain climbers, bungee jumpers, hang glider flyers and other people who engage in different forms of recreation, also be required by law to use some form of paraphernalia or gear?

I might point out that in several States, bills dealing with exactly that have been introduced. In fact, a bill just passed in California that requires everybody who rides bicycles to wear helmets.

I come from western country, as you might guess. We often see in the newspapers that skiers collide with trees, run into rocks and are injured. Sometimes people die. I fear that if the government requires people to wear helmets on motorcycles, that eventually the government will say you have to wear one when you ski and when you are horseback riding.

We had a young lady in Colorado recently killed in a group called the Westernaires. It is a western riding club of about 100 youngsters. She fell off her horse and unfortunately suffered a head injury and was killed. There have already been some people calling for them to wear helmets when they ride horses.

I don't think it is a matter of whether you should or shouldn't wear helmets; it is a matter of whether or not the Government should have a right to force it on States and force it on people.

As you know, our State of Colorado has no helmet law. We are one of three, in fact, that does not have any requirements at all, not an age requirement, not an experience requirement, nothing. A bill was introduced again in the State legislature just a few weeks ago. It failed again by 6 to 1 in committee We had a helmet law until 1977. It was repealed and we haven't had one since but we do have a very strong rider education program.

In Colorado, according to our statistics, Colorado has a motorcycle fatality rate almost 30 percent below the average for States that do have mandatory helmet laws. Of the top 12 States with the best safety records for motorcycles, only one has a helmet law. On the other hand, half of the 12 States with the worse safety records have helmet laws. Clearly, having helmet laws alone are not going to help the problem because helmets don't cause accidents.

Comparing States with and without mandatory helmet laws as a whole, our figures show that for the 14-year period between 1977 and 1990, States with mandatory helmet laws had 12.5 percent more accidents and 2.3 percent more fatalities than States that did not have mandatory helmet laws. When you compare the National Transportation Safety Council statistics for 1992, automobile drivers suffered ten times the number of deaths by head injury when they are in accidents and 100 times more head injuries than motorcyclists when they are in accidents. So you have to ask the question, when is somebody going to introduce a bill that makes everybody that drives a car also wear a helmet?

In the past decade, motorcycle fatalities have decreased by 38 percent and accidents have plummeted by 41 percent. These figures are particularly impressive because the Federal Highway Administration estimates that the average vehicle miles traveled by motorcyclists has increased 85 percent since 1975. These statistics are unmatched in any other category.

I am absolutely convinced when you also recognize that approximately 92 percent of drivers who have accidents on motorcycles have no drivers' licenses and 45 percent of the deaths have no drivers' licenses, we need to put more emphasis on education and not mandates or threats. The national average for motorcycle fatalities per 100 accidents is 2.95. States with rider education programs and no helmet laws have the lowest average death rate of 2.65 fatalities per 100 accidents. States with mandatory helmet laws and no rider education program have a significantly higher rate of 3.09 fatalities per 100 accidents. Clearly, helmets alone are not going to save as many lives as the people who are promoting mandatory helmet laws indicate is the case. In fact, that is why no manufacturer of helmets and no government agency will guarantee them above 15 miles a hour because helmets simply do not work to that degree. There have been a number of studies that have said, helmets actually impede hearing, impede sight and because of the weight, make riders, particularly women who ride, necks tire easily.

I own a motorcycle, as you know. In fact, I have several and my whole family rides. All of us have gone through rider education safety programs and we believe we are safe drivers. I know motorcyclists are often accused of being a bunch of lawbreaking, tattooed, hairy troublemakers who do not believe in the law, and are undereducated, unclassed and so on. That is absolutely not true.

If you look at the profile of who is riding motorcycles today, you will find that a large majority of riders are educated, and working people capable of making their own decisions without government interference.

The old story that you often hear, sometimes from the medical profession, is how injured motorcyclists will create a public burden on the taxpayer if they are injured and do not have insurance. I

don't know of any study that has proven that to be true. I know of three studies that have proven that motorcyclists who are injured and therefore have become a public burden, are less of a burden than automobile drivers who also can become a public burden by being involved in an accident and not having insurance.

In my State of Colorado, I tried to get some comparative statistics because I knew I was going to come here and testify. In my State, I found none. We heard for years that motorcyclists create a bigger public burden than anybody else in Colorado. I checked with every agency in Colorado that tracks statistics and there is no such thing. They pool statistics for injured skiers, injured automobile drivers, injured horsemen and so on. All of these expenses are paid for out of that pool but in fact, they don't divide whether one is higher or lower than the other, it all comes from one pool.

I might also tell you, there have been a number of bills that have been introduced in the United States Senate. There is a helmet law repeal bill introduced by Senator Durenberger and I am a co-sponsor of that. It is very similar to my colleague and friend, Olympia Snow's bill. I also introduced one because 28 States have not yet complied with this Federal mandate dealing with helmet laws. I introduced Senate 401 that offers a two-year delay in the penalties. I also recently introduced another bill that I think is a pretty good compromise. It's basically a waiver and says if States have rider education training programs in place, they would be exempt from the mandatory section of ISTEA. We just introduced it and expect to get a lot of support for that.

In any event, Mr. Chairman, I certainly appreciate your past sensitivity to this and thank you for holding this hearing today.

Mr. RAHALL. Thank you, Senator.

Do you have to leave?

Senator CAMPBELL. Yes, I do but I'd like to stay just for a few moments.

Mr. RAHALL. Then we will go ahead and hear from Olympia.

Ms. SNOWE. Thank you, Mr. Chairman.

I want to thank you, Mr. Chairman, Mr. Petri and the members of the committee for having this hearing today.

I also am pleased to join my colleague, Senator Campbell, in our attempt to repeal a very onerous provision affecting many of the States throughout the country. I also am pleased to have a chance to testify on my legislation H.R. 799, which would repeal section 153 of title 23.

As all of you know, in 1991, Congress included a provision in the Intermodal Surface Transportation Act that essentially penalizes States if they do not enact mandatory helmet and seatbelt laws. Up to 1.5 percent of three highway funds will be diverted in 1995 and up to 3 percent in 1996 into section 402 safety education programs if States have not enacted those two laws by September 30, 1993.

We appreciate the fact that your committee delayed the deadline for compliance from September 30, 1993 to September 30, 1994. That was included in the technical corrections of ISTEA legislation that is now pending before the Senate and passed unanimously in the House last November. We certainly appreciate that.

Nevertheless, as you well know, diverting highway funds to safety education programs if States do not enact mandatory helmet and

seatbelt laws is going to have a negative impact on States who are attempting to upgrade their highway systems.

As Senator Campbell mentioned, there are 28 States that are not in compliance, two States are not in compliance because they did not meet the deadline of September 30, 1993. That represents collectively $53 million that will be diverted from their highway funds for the purposes of safety education. Clearly that is going to be a tremendous hardship because most of these States have established rider education programs. In fact, 42 States have highway education programs for motorcycle riders that are funded through license and registration fees. So States have already recognized the importance and the value of rider education programs, and have established them on a voluntary basis.

There is a cause and effect between adopting and having rider education programs, encouraging people to be involved in those programs, and the reduction of fatalities and accidents among motorcyclists. In fact, since 1983, the number of accidents has decreased from 307 per 10,000 registered motorcyclists to 206. Fatalities have similarly declined from 8 per 10,000 registered motorcyclists to 6 per 10,000 registered motorcyclists. Furthermore, the number of motorcycle accidents and fatalities have decreased by 52 percent over more than this last decade even without the Federal intervention and intrusion of Section 153.

It is interesting to note that of the 10 States that have the lowest motorcycle accident rates, 8 have rider education programs. In fact, the 10 States with the lowest motorcycle accident rate spent 64 percent more on their motorcycle rider education programs than the States with the 10 highest motorcycle accident rates. So we understand that safety programs do work and we should allow them to continue to work.

The penalty provisions are severe. For a State like Maine, we will lose $850,000 in 1995 and in 1996, we will lose $1.7 million. The question before us is how much we in the United States Congress should be mandating to States the policies and legislation they should adopt in areas of traditional State jurisdiction. As we know, the States adopt qualifications for eligibility for a driver's license, for the conditions of the roads. They make those analyses and determinations, they determine the eligibility and standards for insurance. Now we have decided—with rare exception have we ever done this before—that we are going to impose a mandate on States by withholding Federal funds in an area that has traditionally been a State area.

I know that the argument has been and it's one Senator Campbell made reference to here, that somehow motorcyclists have a higher dependency, a greater reliance on public expenditures and therefore, and therefore we have a right to do this. If that is the rationale that we are using, then clearly we ought to be saying that for anybody who is eligible for public assistance, we can determine a certain level of personal behavior. Maybe we should adopt certain standards for behaviors that have an impact on public expenditures for people eligible for certain public assistance. We could look at smoking. We could begin to set all kinds of standards with respect

to personal behavior it has an impact on public expenditures because that is the rationale that Congress has adopted in enacting this penalty provision in the 1991 legislation.

I think we have to be very careful when we begin to encroach into areas of traditional States matters and adopt the view that this one area impacts public expenditures, but we ignore a whole host of other areas. I'm not suggesting that is the route we ought to take but it illustrates the faulty logic that is being used to justify Section 153.

I hope that we give very close scrutiny to this kind of approach because it has been rarely done in the past. We know that alcohol-related accidents are majority of accidents on the road today, but what we have done here in Congress is to create grant programs to encourage the States to adopt stiff and tougher drunk driving laws. That is the approach that we have taken.

I would hope we would be very circumspect in the future about adopting these kinds of mandates because it is a mandate. The proponents of this penalty have said, it's a carrot and stick approach. There is no carrot and stick with this approach. It is do it or else. Rarely in the past have we adopted this approach.

I know you have heard testimony from a Representative who was speaking on behalf of the National Conference of State Legislatures. He indicated that Section 153 clearly is infringing on States' rights, that this is an onerous provision. Certainly that is the view of the National Governors Association.

So I hope that we will review this penalty; I hope that we will repeal this penalty in understanding that there are better ways of addressing the problems, the fatalities and accidents on the road. Not all the accidents on the road have anything to do with seatbelts and helmets. What they have to do with is improper driver behavior. We have to do everything we can to avoid accidents. The only way to do that is through driver education, rider education programs. That is exactly what 42 States have done across this country.

It is also interesting to note for those who have been involved in accidents, motorcycle accidents, 45 percent of those did not have licenses; 92 percent did not have any formal training or experience; and less than half had 6 months of driver's experience on a motorcycle. Clearly, the emphasis should be on rider education. The States have understood that, and we should allow them to continue their programs on a voluntary basis. We should encourage them and that could be our alternative to this penalty.

Let's not pursue a path where we continue to impose mandates and the threat of diverting Federal funds if they do not adopt a certain provision. That is a very unique approach and one that we should not pursue in the future.

Again, Mr. Chairman and members of the committee, I hope that you will incorporate my legislation in the National Highway System bill because clearly Section 153 is the wrong approach to take and will not be the answer to the problem we want to address which is reducing accidents and fatalities on the highway.

Thank you, Mr. Chairman.

Mr. RAHALL. Thank you, Olympia and Ben.

The Chair at this point is going to recognize the distinguished Chair of our full committee, the gentleman from California, Mr. Mineta.

The CHAIR. Let me thank you, Mr. Chairman, for these hearings you have set up for examining the whole national highway system.

I just want to welcome our very fine, former colleague, now a member of that other body, but my very good friend, Ben Campbell. Ben's connection with San Jose is very close and dear. As all of you know, Ben is a graduate of San Jose State University, a very good mutual friend of ours, a fellow by the name of Yosch Whocita, and for a unprecedented number of years, Yosch has been the judo coach at San Jose State and the coach of the U.S. Olympic Team. Senator Campbell was the captain of that U.S. Olympic team at the Olympics and I really appreciate his thoughtful presentation as well as of our colleague, Olympia Snowe.

Senator CAMPBELL. Thank you, Mr. Chairman. I would point out that in all those years that I was in that very rough and tumble sport, nobody ever made me wear a helmet. [Laughter.]

Mr. RAHALL. Let me ask both panelists one quick question if I might.

The other day, representatives of the State transportation departments suggested that the seatbelt and helmet law sanctions be modified so that if a State had either a helmet or a seatbelt law, the sanction would be cut in half. Is this a possible compromise? What are your viewpoints on this?

Senator CAMPBELL. Mr. Chairman, I think from the standpoint of motorcycles, seatbelts would probably be even a bigger danger in not having them. That would be my guess.

Ms. SNOWE. In a State like Maine, we have neither law on the books. There are about 5 States in this situation.

The CHAIR. Would the Chairman yield?

Mr. RAHALL. I would be glad to.

The CHAIR. But isn't that part of the point, the sanction is the State doesn't lose the money as such, right? There is nothing in the present law that says the State loses money?

Ms. SNOWE. No, it goes for another purpose.

The CHAIR. The sanction is that the money moves from the construction account to a safety account. It seems to me that is the very thing you have been talking about in terms of an educational program, in terms of these are productive even though there is maybe no law dealing with helmet laws, that there is no seatbelt law. Driver education is important. That is what you have been talking about, so the sanction is that the money goes from construction to public education.

Ms. SNOWE. But Section 153 is compelling the States to adopt certain laws and I think that should be a decision left to the States. If we want to encourage the States to do more in rider education safety programs, I think we should do that, but what we are doing instead is taking a sledgehammer and saying to states if you don't enact certain laws, you are not going to have the use of this money for its original purpose which in this case is highway construction.

It seems to me the States already understand the value of rider education programs, they already have them. Collectively, they

spend $13 million in that area. You are removing the choice from the States regarding how they want to spend their money. They have already decided to spend money on rider education. Now you are moving money from an area where states desperately need it into another area if they don't pass legislation. I think that is a big difference.

In the past, what we have done with alcohol-related accidents in trying to encourage States to pass tougher laws for drunk driving, is in 1991 and 1988, we enacted legislation creating grants to provide incentives to States to adopt tougher laws. I think that is the better approach. We really are encroaching in an area that has traditionally been a State area. I just wonder how long are we going to want to do that because there are a lot of areas that impact expenditures in which we have not legislated, but we are going to be encouraged to do so by mandates like section 153.

The CHAIR. That's right and we've always heard about unfunded mandates and this is one of the things we thought was also a partial answer to unfunded mandates. You're mandating us to do something and we are going to fund the driver education aspect of it.

It seems to me every time we come up with a solution, there is always an objection. I understand the object is to get rid of all of this but it seems to me that what we are trying to do is find some reasonable approach to be able to do this. The other day I spoke to the Division of State and Provincial Police Agencies of the International Association of Chiefs of Police. Their response was that they would hope that in terms of a carrot and stick approach, our carrot would be a better approach than sanction is what they were indicating.

I thank the Chairman for yielding.

Senator CAMPBELL. Before you came in, I mentioned several bills that have been introduced in the Senate, one very similar to Congresswoman Snowe's bill which is basically a repeal of helmet law mandates. There is also a delay bill and we hope to take up the delay that you passed in the House very shortly.

Recently, another bill was introduced in the Senate that you might wish to look at and I would hope might have your support. It basically allows States to have the choice of either passing helmet legislation or having mandatory rider education programs in place. If they have mandatory rider education programs in place, then they would get a waiver and opt out of the mandatory helmet law. I would hope you would have time to look at that because I think it is a fair compromise. It allows a choice rather than the Federal Government demanding the States only go in one direction.

Ms. SNOWE. Can I just say something further on that point? I think that the better approach is to encourage the States by providing additional incentives through federal funding. If they are losing their current funding, then clearly there is no carrot and stick, that is simply a mandate. They may not be technically losing funds because it is being diverted to another program, but the use to which it was originally intended has been removed from the States because they have not enacted certain legislation.

I think incentives are a far better approach to mandates because I can see numerous areas which the Congress might decide to

adopt a mandate to address a problem. Mandates are just simplistic solutions to very serious problems. I think Section 153 is one case. There are people who ride motorcycles with helmets and still get killed because they don't have appropriate training. I think the emphasis should be on education and trying to provide the right approach for drivers as well as riders of motorcycles. That is what we ought to be doing. I think the final analysis based on our statistics would show that those programs have given the best results.

Mr. RAHALL. The gentleman from Wisconsin, Mr. Petri?

Mr. PETRI. Thank you.

We have a long hearing scheduled today so I won't belabor this subject but I wanted to thank you for coming. I must say that if we are unable to work out a good resolution, I would respectfully suggest consider having a hearing in Sturges to see how those most directly affected feel. Often, people say we make the rules so that everyone has to play the same game and we can be good citizens. I wonder if that is really true among those most directly affected, the people who are being told by their government what to do insofar as their own safety is concerned.

Senator Campbell, I can't believe what you were saying. Are your facts accurate that States that do not have mandatory helmet laws in place have lower fatalities?

Senator CAMPBELL. Only one State has a higher rate that has mandatory helmet laws but no rider training in place; 12 have lower ones and have rider education and no helmet laws.

You mentioned Sturgess, there is something that we didn't even deal with here and that's the economic impact of motorcyclists. I don't want to belabor the point but since you did mention Sturgess, I'll tell you that event brings in an average of $57 million every year in one week to the State of South Dakota. I got that information from the Sturgess Economic Impact Statement done by the Chamber of Commerce there.

They did a survey of the motorcyclists, since South Dakota is one of the States that does not have a helmet law. Riders were asked if a helmet law would affect them coming to South Dakota. Almost half of them said they would reconsider going to South Dakota if there was a mandatory helmet law. So there is an economic factor.

There is an economic factor on California too. Sales of motorcycles went down—they passed the mandatory helmet law in California. There are a number of other statistics that indicate there is an economic factor once you have mandated helmet laws.

Mr. PETRI. I have heard some on the other side testify that we have to bear on our conscience the loss of life if we repeal the helmet law, so I'm very interested in your testimony if it's true that almost all States that don't have helmet laws have lower death rates. Perhaps the question of conscience should be on the other side in the sense that we should be mandating education, if anything, rather than a falsely directed mandate which may sound good and yet has blood on its hands, in effect.

Senator CAMPBELL. That is exactly the point. If you have a conscience problem in saying, we've got to control those guys riding motorcycles because I'll have it on my conscience if one of them gets killed and I didn't do something as a public official in mandating public policy. You then have to ask yourself the same thing

about every other form of recreation. Would you also have it on your conscience every time somebody runs into a tree skiing? I would hope not.

Thank you for your time.

Mr. RAHALL. The gentleman from California, Mr. Hamburg?

Mr. HAMBURG. Thank you, Mr. Chairman.

I have a prepared statement for the record, and a couple of questions for the panelists.

Mr. RAHALL. Your prepared statement will appear in the record at this point.

[Mr. Hamburg's prepared statement follows:]

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OPENING STATEMENT OF DAN HAMBURG
NATIONAL HIGHWAY SYSTEM HEARING
SUBCOMMITTEE ON SURFACE TRANSPORTATION

MARCH 3, 1994

Good morning Mr. Chairman, colleagues and witnesses.

Throughout these hearings, we have heard how the proposed National Highway System will strengthen our transportation infrastructure. But, in this time of ever-tightening budgetary considerations, it is imperative that we proceed wisely as we establish this vast network of roadways that will comprise the NHS. We must turn to technologies that will provide us with new answers to our old problems, allowing us to obtain high quality roadways for our transportation dollars.

In my home state of California, we have taken this very approach. In an effort to construct roadways that are more durable and cost effective, the California Department of Transportation has used crumb rubber modifiers in its asphalt pavement mixtures since 1978. This has not only resulted in better asphalt surfaces, but also in a secondary use for a waste product of the cars and trucks that travel across the very roadways being improved. Mr. Chairman, with this in mind, I will be submitting written testimony from the California Department of Transportation to be entered into the record. I believe that this experience-based testimony will help us make the right decisions as we discuss Section 1038 of ISTEA and other issues related to the National Highway System.

Thank you, Mr. Chairman.

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Mr. HAMBURG. Thank you, Mr. Chairman.

I just want to say for the record that I am pro choice on this issue and I'm from California and there are obviously a lot of motorcycle enthusiasts in my State who feel very similarly to the testimony that Senator Campbell and Congresswoman Snowe have given us.

I just wanted to ask Congresswoman Snowe, how she feels about the option that Senator Campbell just discussed, that States would either have one or the other, either the mandatory helmet law or the rider safety education program?

Ms. SNOWE. The problem I have the Senator Campbell's bill is that in Maine we have a motorcycle education program but do not have either a mandatory helmet law or seat belt law. That's the dilemma. Senator Campbell and I were just discussing that. His bill still forces States to enact seatbelt legislation, and that is what bothers me because it still intrudes in areas that have traditionally been State matters.

I would like to work out an alternative, but I would prefer not to require States to adopt certain legislation in this area. I think we should leave it to the States.

Senator CAMPBELL. That would be my first choice too, by the way, Congressman Hamburg. It's just that we haven't been able to approve that in the Senate, so I've been looking for something else we could move.

Ms. SNOWE. It would be helpful to find an alternative here because I just think we're embarking down this path and we'll do it more frequently in the future because we have this leverage of Federal funds. This clearly is an area for States. It is very rare that we would withhold funds.

Mr. HAMBURG. But you would feel okay about something like incentive grants over and above the normal Federal allocation to States for doing either safety education or helmet——

Ms. SNOWE. Yes, and that's the big difference. This isn't over and above anything else they have.

Mr. HAMBURG. I understand your objection.

Ms. SNOWE. That is the biggest problem I have with it. I think we all know that education ultimately leads the better drivers, understanding how to use the motorcycle more specifically is very necessary. If you don't have that formal training and preparedness, you are likely to be in an accident whether you are wearing a helmet or not.

So I think we ought to be looking at being preemptive and avoiding accidents. The best way to do that is through education.

Mr. HAMBURG. But you don't want that to be mandated on the States.

Thank you, Mr. Chairman.

Senator CAMPBELL. Congressman Hamburg, I might mention, since you are from California that you probably are aware that January 3rd, over 6,000 voting motorcyclists showed up at the State capital to protest the California mandated helmet law. There was a bill introduced to repeal that law which failed by one vote in committee. I imagine that bill will be up again in the California State Legislature. Motorcyclists are getting very politically active. It was surprising to me that in a driving rain, 6,000 would come

from Los Angeles and all over the State to protest that mandated provision.

Mr. HAMBURG. They made their feelings felt to me, Senator. You can be sure of that.

Ms. SNOWE. I'd make an additional point. When you're talking about States, it is almost as if in some way, there is an underlying assumption that States don't have a concern about the impact on public dollars, that they are somehow not affected by the number of fatalities and accidents that occur on the highways.

The States don't get reimbursed from the Federal Government for 100 percent of the Medicaid Program. They pay 36 or 37 percent, their contribution to the mandates imposed by the Federal Government on the States. So if every person in an accident happens to be a public recipient, that certainly affects the State's coffers. So they do have an incentive. I think something we've overlooked in this debate is the incentive for the States to do what they think is best to reduce the number of fatalities and accidents on the highway. They clearly have an incentive because it's costing them.

Senator CAMPBELL. In more ways than one I might mention. In California, there was a recent study of all of the motorcyclists who decided to go to court to fight the mandated helmet law. I was looking at some statistics yesterday that indicated the average cost of going to court. It costs taxpayers over $4,000 per case. When you talk about use of public taxpayers' money, if you multiply that times any number of people that might continue to go to court when they realize they have a chance—it's a pretty good, sizable amount.

Mr. RAHALL. The gentleman from California, Mr. Kim?

Mr. KIM. I'm in some agreement with Congresswoman Snowe. I don't think it's right that we penalize each State for participating with a federally-mandated program. I think it's up to the individual State.

Thank you.

Mr. RAHALL. The gentleman from Tennessee, Mr. Clement?

Mr. CLEMENT. Senator Campbell, it's great to have you here today. I enjoyed our dissertations when you were a member of the U.S. House of Representatives prior to your promotion.

Senator CAMPBELL. Demotion?

Mr. CLEMENT. Well, it may be a promotion. [Laughter.]

Are you saying that by wearing a helmet—I know you ride a motorcycle on a regular basis—are you saying a helmet law is more dangerous than someone who does not wear a helmet?

Senator CAMPBELL. What I have said is the statistics have shown us that rider education is a bigger factor in reducing deaths and accidents than helmets. In many cases, helmets have become an obstruction for riders. There have been studies done that say it reduces peripheral vision, reduces hearing, reduces it a measurable amount of decibels and, in fact, contributes to accidents.

My problem has never been whether a person wants to or doesn't want to wear a helmet. The problem frankly has been with government telling you that you have to. I wear one every time it rains, sometimes I wear one to keep my ears warm, but I want to do it

by my choice. Congressman Hamburg said he is pro choice. I am too, in more ways than one.

Mr. CLEMENT. Chairman Mineta commented a while ago that is what the law is intended to do, to put more emphasis on safety programs and educations. I thought that's what you just said. Safety and education are the reasons why lives are being saved and people are not being hurt.

Senator CAMPBELL. It surely is. The helmet issue has become a live wire. It seems to be the first thing—if you pick up any newspaper that talks about an accident with a car, rarely will it ever say anything about a safetybelt. On the motorcycle accident report sheet, every newspaper you ever read, the first thing it says, he wasn't wearing a helmet or he was wearing a helmet.

I had a friend that his motorcycle slipped out from under him and he skinned his knee up pretty bad. He went to the doctor in Durango, Colorado and when he went to the doctor, the first thing the doctor said was, were you wearing a helmet, and the guy said, on my knee? It's like a little hot button, the word helmet. Because of it a lot of truth facts about them don't even seem to surface.

Mr. CLEMENT. What about the sale of motorcycles, what has happened to that? Is it continuing to decline?

Senator CAMPBELL. The only statistic I saw was that sales of motorcycles in California went down by something like 50 percent in 2 years, the sales of new motorcycles after the mandatory helmet law was implemented. The study I have also indicated the amount of tax revenue lost to the State of California because of the loss of sales and the loss of jobs.

Mr. CLEMENT. Are you arguing that this should be up to the individual, that it really shouldn't be up to the State or the Federal Government or whoever it should be up to the individual? Is that what you're saying?

Senator CAMPBELL. That's what I advocate and if you want the individual to wear it, you should encourage him through education.

Mr. CLEMENT. What about insurance? I know people that now have to comply with the seatbelt laws, those States that have it, their insurance rates are lower. Should that be taken into consideration?

Senator CAMPBELL. Most States that I'm aware of that have rider education training in place, most insurance companies give reduced rates if you have taken a rider training program. They don't give you reduced rates if you're wearing a helmet; they give them to you if you've had training. In the State of Colorado, nothing in the law says you have one price if you wear one and one price if you don't. We don't have a helmet law in Colorado but there is nothing in any insurance policy that I've ever read that says you get a reduced rate if you wear a helmet. It does say you'll get a reduced rate if you take safety training.

Mr. CLEMENT. But you would oppose helment laws even on a State level?

Senator CAMPBELL. Mandatory ones, yes. I have consistently in my State.

Mr. CLEMENT. Thank you.

Mr. RAHALL. The gentleman from California, Mr. McKeon?

Mr. McKEON. I'm sorry I got here late and didn't hear all of your testimony but it has been very educational for me. I come from California and we do have a mandatory helmet law and mandatory seatbelt laws. I'm afraid of motorcycles, so I don't drive them but I have a brother that does every day. It has been educational to me to hear that the safety education does more to save lives than the helmet. I have always thought the reason we passed the law as to save lives, so there is probably some misinformation out there. This has been enlightening.

When they passed the law on seatbelts, I started wearing them and now I just do it automatically. I think that has been helpful for me, the seatbelt law, but I buy into your argument on the Federal mandate and I would like to learn more about this.

Thank you for your testimony and the education.

Senator CAMPBELL. One of the problems I think we have is that too many non-motorcyclists dealing with this issue and they don't know anything about it. I was interested in the 1992 National Safety Council statistics that said a little over 2,900 motorcyclists died that year. We often have the medical profession pointing to that number saying, 2,900 people died in motorcycle accidents. We could save them if we had mandatory helmet laws and so on.

In that same report, it said 2,700 died on operating tables but the doctors never talk about that. So it is very convenient for somebody to talk about somebody else's activity as if they are an expert in the problems they face and avoid the ones they face in their own profession, unfortunately.

Mr. RAHALL. The Chair recognizes the distinguished Chairman of the Water Resources Subcommittee, the gentleman from Ohio, Mr. Applegate.

Mr. APPLEGATE. Thank you very much, Mr. Chairman.

I think I could say there are about 40,000 people who die in four-wheel vehicle accidents each year.

Let me just say this, Ben. Welcome back to your humble beginnings and it is good to have Olympia Snowe here. She is certainly one of the most dedicated members I have had the privilege to serve with. I know how strongly she feels on this.

I am a co-sponsor of your bill and I think it is very important. I think the way the law is right now is absolutely ridiculous and I don't think we need it. I voted against it when I was in the legislature as a senator, I voted against the helmets and I voted against mandatory seatbelts because it always seemed difficult to me to think that we could pass laws to protect ourselves from ourselves. If we were passing laws to protect somebody else by this, then I would be the first one on board to say that if your wearing a seatbelt or head gear was going to save somebody else's life, I would be right there at the forefront, but that isn't the case. I think it is a constitutional question myself.

Ohio has been at the forefront. They do have an educational program for those under 18. I can tell you this, it has proven to be very effective because it has saved lives and I think it has been a benefit on insurance. I think that other States who do not have it, I would suggest it would be a good idea to put it into play because

I think it is very important, and it works. That is the most important thing, it works, but it doesn't have to be shoved down the throat of anybody.

You had mentioned that maybe the helmets might get in the way, but I would think that anybody who doesn't ride with a helmet is crazy, myself. I would think that anybody that gets into a car and doesn't put their seatbelts on is crazy. I would never leave my driveway without my seatbelt on, but for somebody to tell me that I have to do it, I oppose that.

I'm very glad to see that you are here and you are fighting for it. Hopefully, with the good graces of the chairman and the balance of the committee, maybe we will be able to see some resolution to this question.

Thanks very much for being here.

Ms. SNOWE. Thank you and I thank you for your support of this legislation as well. I wholeheartedly concur with you. There is a big difference when people understand the consequences of their actions because they learned it through education.

Mr. RAHALL. The gentleman from Illinois, Mr. Poshard?

Mr. POSHARD. I am also a co-sponsor of Representative Snowe's bill and I thank you, Senator, for your testimony on this issue.

I have a group of folks back in the district which I represent, a statewide organization called ABATE. They train people, they educate people in the appropriate use of motorcycles. I would venture to say that their educational and training programs in the appropriate use of motorcycles in our State rivals any driver's education program anywhere in the State with respect to training in the appropriate use of automobiles on the highway. They have probably saved more lives in our State just through their training and education programs than anything else we have going with respect to motorcycle safety. So I applaud them.

I think that we can accomplish our objective of greater safety on the highway with the kinds of education training programs that these and other groups have brought to the forefront as opposed to one more Federal mandate upon folks in our individual States.

I am in support of your bill. I hope we can listen to some of the things that you folks have said and can find a better way to do this. I think the question we have to deal with is, is there a better way than the Federal mandate? I think there is and I think it's been proven, not just in my district and State, but in other States as well.

Thank you.

Senator CAMPBELL. Two-thirds of the motorcycle accidents are the fault of the automobile, not the motorcycle. I think we ought to have some education for automobile drivers about watching out for motorcyclists.

Ms. SNOWE. I'm glad you mentioned that about bikers organizations because I attend the annual rally in Maine with the bikers and I can tell you they are always emphasizing and explaining to their members about their rider education program. They have an annual event where they invite their members to come, they can participate in the rider education program but that is one of the

major points of their whole effort, to help educate their membership in the formal training of riding a bike. They are very engaged in that process.

I might also clarify something in case I gave the wrong impression to Representative Hamburg. In Maine, we don't have a helmet and a seatbelt law, but we do have rider education programs. That we do have. My bill just repeals the penalties that are involved in the 1991 bill but would keep the incentive programs there.

Thank you for your support. The fact is we have 119 co-sponsors of this legislation, 15 on this subcommittee.

Mr. RAHALL. Thank you, Senator Campbell and Representative Snowe.

Ms. SNOWE. Thank you.

[Senator Campbell's and Ms. Snowe's prepared statements follow:]

SENATOR BEN NIGHTHORSE CAMPBELL

MARCH 3, 1994

Mr. Chairman, I am happy to be back to my old haunts over on this side of the Capitol to join my friend Congresswoman Snowe. I join her request for language in the designation of the National Highway System which would repeal the federal mandate in the Intermodal Surface Transportation Efficiency Act of 1991. ISTEA forces states to pass helmet and seatbelt laws or face significant financial penalties.

In the Senate, I recently introduced legislation that would exempt states that choose to establish motorcycle safety programs, or currently have safety programs, from these penalties.

It should be pointed out, Mr. Chairman that funds for the National Highway System are affected. The states in non-compliance with ISTEA are being to forced to shift 1.5 percent of their federal highway dollars. This transfer effects three programs: the Surface Transportation program, and the Congestion Mitigation and Air Quality Improvement program and, as mentioned, the National Highway System. After Sept 30 1994, if a state has still not enacted seatbelt and helmet laws, they are required to shift 3

percent of their federal highway funds from these important programs into safety programs.

I am opposed to the federal government blackmailing states to pass laws. It simply is not good policy to force states to funnel funds from one state transportation activity to another. It should be pointed out that the money the federal government wants to redirect, is tax revenue already paid by state residents.

My own state of Colorado has no helmet law. In fact, a bill to implement a helmet law recently introduced in the state legislature went down in flames.

Colorado, however, has a motorcycle fatality rate almost 30 percent below the average for states with mandatory helmet laws. Of the top 12 states with the best motorcycle safety records, only one has a helmet law. On the other hand, half of the 12 states with the worst safety records have helmet laws.

Comparing states with and without mandatory helmet laws as a whole, figures show that for the 14 year period between 1977 and 1990, states with mandatory helmet laws had 12.5 percent more accidents and 2.3 percent more fatalities than states that did not mandate helmet usage.

In the past decade, motorcycle fatalities have decreased 38 percent and accidents have plummeted 41 percent. These figures are particularly impressive because the Federal Highway Administration estimates that the average vehicle miles traveled by motorcyclists has increased 85 percent since 1975. These statistics are unmatched by any other category of road user -- passenger or commercial.

What can account for this decrease in accidents and fatalities? Evidence clearly indicates that the most effective way to reduce motorcycle accidents and motorcycle fatalities is through comprehensive education programs, as opposed to mandating helmet usage. Currently 42 states have established and

funded some sort of safety program.

The national average of motorcycle fatalities per 100 accidents is 2.95. States with rider education programs and no helmet laws, however, have the lowest average death rate, 2.56 fatalities per 100 accidents. States with mandatory helmet laws and no rider education programs have a significantly higher rate of 3.09 fatalities per 100 accidents.

Police accident reports indicate that well over 45 percent of motorcyclists involved in accidents did not have a motorcycle license, 92 percent did not have any rider training and more than half had less than six months riding experience. 62 percent of the

accidents and 50 percent of the fatalities involved riders between the ages of 17-26. Clearly, mandating helmet use will not address the real problem of rider inexperience and lack of training.

I realize the motivations behind ISTEA and those who wish to force states into passing helmet and seatbelt laws are doing so out of concern for the safety of the traveling public, but I think their efforts are misguided.

Forcing states to pass laws, or throwing money at safety programs is not the answer. Throughout my career in politics, I have always strived to protect the interests of states and communities by allowing them

to make the important decisions on how their affairs should be conducted. When Congress blackmailed the states regarding highway speed limits, I thought that was wrong. The same for seatbelt and helmet laws. I have stuck with the philosophy that each state and each community should, to the best of their ability, be allowed to make its own policy decisions.

I own a motorcycle, that's no secret. Where helmets are required to be worn, I wear them, where they are not, I don't. I make no bones about the fact that my dislike for the federal mandate requiring states to pass helmet laws is in part inspired by my interest in motorcycling. But, I also think personal freedom is an issue. I am pro-choice. I do not think

the federal government should dictate to the states, or its citizens, on matters of individual liberty. The choice of wearing of a helmet, or not doing so should be left up to the individual -- not forced by government extortion. And those who contend that it is not simply a personal responsibility because motorcyclists who choose not to wear helmets can become a "public burden", are using faulty logic. It would then follow that we should mandate helmets for skiers, horsemen, skateboarders and automobile drivers.

Mr. Chairman, in closing, I want to strongly encourage my colleagues to reconsider the position Congress took in ISTEA in mandating that states

pass helmet and seatbelt laws. It is wrong to blackmail the states into passing laws. I would urge the committee to carefully consider Congresswoman Snowe's suggested language. Further, I encourage you to discuss this issue with motorcycle riders in your states. I think that if you review the facts, you will find that mandating helmet use makes little practical sense.

TESTIMONY OF OLYMPIA J. SNOWE
before the
House Transportation Subcommittee
on Surface Transportation
March 3, 1994

Mr. Chairman...Members of the Committee...thank you for the opportunity to testify before you today. I'd like to talk to you about a transportation issue of critical importance and interest to states and to many of my constituents, and to urge you to include provisions from my bill, H.R. 799, in the National Highway System legislation.

My bill is quite simple. It would repeal the penalties specified in Section 153 of Title 23, which were included in the Intermodal Surface Transportation Efficiency Act (ISTEA), passed in 1991. As you know, Section 153 required states to enact motorcycle helmet and automobile seat belt use laws by September 30, 1993. States that did not comply by that date will be forced to divert 1.5% of their FY95 highway funds from three programs, the National Highway System Program, the Surface Transportation Program, and the Congestion Mitigation and Air Quality Improvement Program to Section 402 safety programs. This penalty increases to 3% in FY96 for states that have not complied by September 30, 1994.

The Public Works and Transportation Committee delayed the 1993 deadline by one year in the Technical Corrections to ISTEA bill, H.R. 3276, and I'd like to thank the Committee for making that much needed delay possible. As you know, this bill passed the House unanimously on November 8, 1993, and is currently awaiting action in the Senate. If it becomes law, then the first year's deadline for compliance with Section 153 will be changed from September 30, 1993 to September 30, 1994, and the first year's penalty would still take effect in FY95.

Under current law, on September 30, 1993, twenty-eight states were not in

compliance with Section 153 and are subject to financial penalties in FY95 - twenty-eight states which disagree with the federal government's intrusion into what has traditionally been within the jurisdiction of individual states. And I think its interesting to note that a minority of our fifty states have seen fit to enact mandatory laws on seatbelts or helmets. The penalties these states face amount to a total of $53.3 million. Mr. Chairman, that's $53.3 million dollars which won't be available for upgrading roads in the National Highway System program, for constructing and maintaining highways, or for promoting mass transit. Instead, those valuable federal dollars will be spent on highway safety programs, which a majority of states already fund quite generously.

I should also point out that states and motorcyclists have also been at the forefront of highway safety programs. Forty-two states have funded state motorcycle safety programs, most of which are paid for by motorcyclists through motorcycle registration and license fees. Nevertheless, the federal government - through Section 153 - is willing to force states to redirect their precious federal resources to programs which have the necessary funding levels. Frankly, I don't believe anyone here thinks we should actually compel states to direct desperately needed highway construction funds into well-funded highway safety programs.

States have been doing an excellent job promoting highway safety. Since 1983, the number of accidents has decreased from 307 per 10,000 registered motorcyclists to 206. Fatalities have similarly declined from 8 per 10,000 registered motorcyclists to 6 per 10,000 registered motorcyclists. Furthermore, the number of motorcycle occupant fatalities declined 45.4%, from 5,144 in 1980 to 2,808 in 1991, when no mandatory federal helmet law existed. This substantial decline in motorcycle fatalities demonstrates that states are capable of addressing safety issues without federal government intervention.

It is also interesting to note that of the ten states with the lowest motorcycle accident

rate, eight had motorcycle rider education programs. In fact, the ten states with the lowest motorcycle accident rates spent 64.4% more on motorcycle rider education programs than states with the ten highest motorcycle accident rates. Clearly safety programs do work, and we should allow them to continue to work.

The penalty provisions of Section 153 affect states in dire need of their highway construction funds. For my State of Maine, the estimated penalty is $853,194 in FY95, increasing to $1.7 million in FY96.

It is contrary to the principles of federalism for the federal government to thwart the efforts of states to rebuild their transportation infrastructure as a way of coercing the public to buckle up. In addition, it is flawed public policy, because poorly maintained roads are often quite hazardous to the motoring public.

Like you and other Members of the Committee, I have always strived to protect the interests of our communities by allowing them and individual states to make the important decisions on how their affairs should be run. I believe that each state and each community should, to the extent of their ability, be allowed to make their own policy decisions. This is consistent with the principles of federalism, as envisioned by our Founding Fathers.

Section 153, in my view, is eroding the very freedoms and liberties on which this country was founded - the principle of individual freedom. Through such provisions as Section 153, we are slowly but surely stripping those freedoms and liberties away. The questions that beg to be asked are these: Where do we draw the lines? And how far is Congress willing to go in the debate over individual freedoms? In a hearing last year before this Subcommittee, the National Conference of State Legislators expressed a very clear and solid view that the mandatory helmet and seatbelt law provision was one of the most infringing provisions on the rights of individual states included in ISTEA.

I think they're absolutely right. And so do 118 other Members of Congress - Republicans and Democrats alike - who have cosponsored my legislation to protect the rights of states and individuals. Twenty of these cosponsors serve on the Transportation Committee...fifteen of those cosponsors serve on this very Subcommittee.

There is no doubt that we must do everything we can to make our roads safer, to reduce the number of fatalities and severe injuries that occur on our nation's highways. I do think, however, that there are better ways for us to achieve these goals, without resorting to imposing penalties on our financially-burdened states. I am willing to work with the Subcommittee to craft an alternative program to the penalty provisions of Section 153 that will be eliminated by the enactment of my bill. One such alternative is to provide grants for states that meet standard goals for the reduction of fatalities and serious injuries. In this way, the federal government would respect the prerogative of states to determine their own ways to increase highway safety.

My legislation, H.R. 799, restores the ability and option of states to use federal transportation dollars as they see fit. I believe the upcoming National Highway System legislation is the appropriate vehicle for H.R. 799, because the National Highway System program is one of the three penalized transportation funds, as stipulated in Section 153 of ISTEA. I urge you to support this legislation and make it part of the National Highway System bill.

I look forward to working with you and other colleagues during the upcoming months as we consider legislative proposals to improve our nation's transportation policies, and I'll be happy to take any questions from the Committee.

Mr. RAHALL. Now the other side of the story.

We are delighted to welcome to the subcommittee this morning the guru of health care reform, at least in some peoples' minds, our dear friend and colleague, the Representative from Tennessee, Jim Cooper.

Jim, we welcome you to the subcommittee this morning. We have your prepared testimony and you may proceed as you desire.

TESTIMONY OF HON. JIM COOPER, A REPRESENTATIVE IN CONGRESS FROM TENNESSEE

Mr. COOPER. Thank you, Mr. Chairman.

I hope that 1994 will be the year of health care reform and the most important thing this committee could do to help promote proper health care in America would be to preserve Section 153 of ISTEA. If you repeal it, it will be perceived as a giant step backwards from the cause of health reform.

As you know, Section 153 encourages States to enact safetybelt laws for cars and motorcycle helmet laws for motorcycles. States with both laws are eligible for incentive grants; States that do not have both laws in place, will have a small part of the Federal highway funds redirected, not taken away, but redirected to their own highway safety programs.

I supported Section 153 with its redirection provision instead of a proposal that sanctioned States with the risk of loss of highway funds. Section 153 is key to seeing that safetybelt and helmet laws actually are on the books in all 50 States. Without Section 153, States will revisit and possibly repeal existing laws.

Why did we enact Section 153 in the first place? Simply put, it saves lives and taxpayer dollars. In 1993, 5 million people were injured in motor vehicle crashes, half a million seriously enough to be hospitalized and nearly 40,000 died as a result of their injuries. Last year, these crashes cost more than $137 billion in lost productivity, medical costs, property damage and other direct expenditures. Who pays these costs? We all do.

Nearly one-third of all first year medical costs resulting from motor vehicle injuries are paid for by taxpayer dollars. We also pay through our medical, life and car insurance policy premiums. A disproportionate number of those injured are on public assistance or become eligible for public assistance, and many others become medically indigent as a result of the high cost of serious injury, particularly brain injury. Many victims suffer head injuries or other traumatic injuries requiring extended periods of care and rehabilitation. Yet the number of deaths and injuries have declined and health care costs have been reduced by States that have enacted safetybelt and helmet laws.

In the first year of its helmet law, California's motorcycle fatalities decreased by 36 percent. Although opponents of Section 153 predicted an increase in nonfatal injuries, California experienced a dramatic 19 percent drop in injuries. The State has also saved millions of dollars.

Some opponents of 153 complain that States will lose Federal dollars under Section 153 because States will not be able to spend the redirected funds. This is just not true. In every State, the need for Federal funds for highway safety programs far outstrips the

ability of the State to provide those funds. Last year, in New Jersey, for example, the State Highway Safety Office received requests for projects totalling $39 million while their grant apportionment was only $4 million. Uses for these funds include: AMTI, drunk driving efforts, traffic safety law enforcement, emergency medical service, programs promoting safetybelt and motorcycle helmet use, speed law enforcement and pedestrian safety.

Since Section 153 became law, seven States have adopted safetybelt laws or motorcycle rider helmet use laws. This does not include States like California, Arkansas, Alabama and Delaware which enacted either helmet or safetybelt laws in 1991 when ISTEA was under debate. These provisions were specifically mentioned in the State legislatures as one incentive for enacting the bills. The fact is, without Section 153 with its redirection provisions, we would never have seen these changes.

In brief, those of us who support these life-saving laws believe that the facts speak for themselves—safetybelt and motorcycle rider helmet laws work, Section 153 works, and Section 153 is a fair approach to encouraging States to enact these lifesaving measures. The truth is simple, repealing or weakening Section 153 will not only cost additional health care dollars but will cost lives and increase traumatic injuries.

Thank you, Mr. Chairman.

Mr. RAHALL. Thank you, Jim.

Let me ask you the same question I asked the earlier panel, in regard to the recommendation from the State Transportation Departments that the seatbelt and helmet law sanctions be modified so that they provide that if a State has either helmet or seatbelt laws, then the sanction would be cut in half. What is your position?

Mr. COOPER. I think it is very important for us to promote all forms of highway safety, whether it is in a car or on a motorcycle. It is very important for States to have both laws. To shirk our responsibility in this area would be to expose either automobile passengers or drivers or motorcyclists to excessive risks. I think it is important that we stick to our guns and keep Section 153 in place.

Mr. RAHALL. The Chair recognizes the full committee Chair, the gentleman from California, Mr. Mineta.

The CHAIR. Let me thank you, Mr. Cooper, for your efficacy on this situation.

We heard earlier from Senator Campbell some statistics relative to those States that don't have a mandatory helmet law but do have a mandatory driver education program. He was indicating that those States had a lower rate than the States that had a mandatory helmet law. I'm wondering, do you know what State he might have been referring to because we are going to have to take a look at those as well?

Mr. COOPER. I would remind the committee of the GAO report on this issue that was issued in 1991. On page three of that report in the section entitled, "Results in Brief," let me read two sentences. "Although studies evaluated differed in specific questions addressed and methodologies used, they were consistent in pointing to a safety benefit from helmet use. When universal helmet laws have been in effect, fatality rates have generally been 20 to 40 percent lower than during periods before enactment or after repeal."

Remember, our bill both encourages these laws and encourages safety education.

As my colleague, Senator Campbell, mentioned, I believe that he said he would be opposed to safety education even if it were a State level reform.

We have to get this education out there and our bill is a very positive way of doing that, to make sure that States pay attention to keeping their own citizens healthy as long as possible.

I've enjoyed working with the Chairman, I've appreciated his courageous leadership on this issue. This is not an issue to describe to certain constituents, but it is a vital, public health measure. We will be seen by the Nation and the world as backtracking, as shirking our responsibilities if we repeal or weaken Section 153.

Thank you very much.

Mr. RAHALL. The gentleman from Wisconsin, Mr. Petri?

Mr. PETRI. I'd like to welcome you again this morning. I welcomed Mr. Cooper before the Education Committee about a hour ago.

One of the reasons I co-sponsored your approach in health care is that it did not have a mandate. Here, we are talking about maintaining a mandate on motorcycle riders. I hope that some of the things that led you to feel that a mandate was not the way to go in health care, but that there might be other ways of skinning the cat to get the job done would lead you to be at least somewhat understanding if we explore other ways of reducing fatalities than simply relying on a mandate. We do that somewhat in this section at issue.

Could you enlighten us either here or later of statistics and whether they are inconsistent or whether they can be reconciled.

You mentioned, or maybe the Chairman did, that California fatalities dropped about 19 percent after the adoption of the California helmet law and just cited statistics that indicate that, generally, States that adopted helmet laws experienced a 20 to 40 percent drop in fatalities. Senator Campbell indicated that sales of motorcycles dropped 50 percent after the California law.

So are we looking at fatalities per mile or per bicycle or per hour on the road? Are there just fewer fatalities because there are fewer motorcycles out there and the real rate is not being affected? That's basically my question. I am not trying to be argumentative. I'm just trying to see if we are citing statistics that really are not comparable in this discussion.

Mr. COOPER. First, on the mandate issue, as the gentleman knows, I resist mandates, I don't like mandates. It's important to be clear on this Section 153. It is not an unfunded mandate. It is funded. Really, it is funded honesty. Most everyone that comes before you says they are for highway safety programs; well, let them put their money where their mouth is. We've got to have these programs. There should be no State in America without a funded, safety program. That is what Section 153 does.

On the statistics, you know there are many ways to lie and statistics are one of those ways. I rely on the GAO report that I think this committee relied on when it passed the ISTEA measure with Section 153 in it. Rather than quibble about statistics, let's think

about human beings and human lives. The numbers and the consensus among all the studies is, mandated, universal helmet laws have lowered fatality rates by 20 to 40 percent. That is the bottom line.

You can adjust it for the weather, you can adjust it for motorcycle sales, you can adjust it for most anything you want, but they save lives and they decrease the probability of traumatic, long-term injury.

Mr. PETRI. That is true but I think it is relevant to try to adjust it for motorcycles, not necessarily for the weather because there are a lot of ways we can save lives, as someone pointed out. We could ban automobiles, we would not have 60,000 people killed in automobiles. There are costs as well as benefits from most human activities and when we do interfere through government regulation, we want to try to do it in a way that is constructive overall. That, I guess, is basically what this debate is about, whether this is the most constructive way to go or not.

Mr. COOPER. Perhaps the gentleman would like to ask for another GAO study and pending that, keep Section 153 in place.

Mr. RAHALL. The gentleman from California, Mr. Hamburg.

Mr. HAMBURG. I'm sorry I missed Congressman Cooper's testimony but I just wondered, did you address the issue of as Congresswoman Snowe spoke about, of where government starts and stops mandating? Obviously, we mandate a lot of things but when you get into this health and safety field, what is your judgment about where we stop?

I don't know how many people die or are injured each year in motorcycle accidents. I think Senator Campbell quoted a figure of 60,000 or someone quoted a figure of 60,000 automotive fatalities a year. Take the proverbial example of cigarette smoking which probably kills 5,000 to 6,000 people a year, the number of people who die from smoking-related illness, shouldn't we be mandating that people not smoke cigarettes anymore also?

Mr. COOPER. That may be but I don't believe that's within the jurisdiction of this committee. What this committee does have jurisdiction over is highway safety. The committee has passed an excellent section that is working, that is saving lives and money. To repeal that section now would be a tragic step backward for public health in America.

Mr. HAMBURG. Hypothetically, would you favor the Health Subcommittee of Ways and Means? Would you advocate that Mr. Waxman or Mr. Stark take on that issue in the relevant committees and have a national smoking ban?

Mr. COOPER. I have been quite blunt in saying that cigarette-smoking is the number one preventable cause of death and disability in America.

Mr. HAMBURG. The issue is mandates.

Mr. COOPER. The process the Administration is advocating is a cigarette tax as a way to discourage especially young people from beginning smoking. What you have within your jurisdiction on this committee is highway safety and to shrink from that great obligation would be a tragic step backwards. Your own State of California has shown leadership in this area. People are healthier as a result, costs are being reduced as a result. We need to make sure that all

States have at least safety classes, if not requirements that motorcycle helmets be worn.

Mr. HAMBURG. I totally agree on the idea of the safety classes, that each State should offer those, but I think when we get into this situation of mandating laws in this area, we're on a slippery slope.

Thank you, Mr. Chairman.

Mr. RAHALL. The gentleman from California, Mr. Kim? We are going to try to finish up with you before we break in 5 minutes for this roll call vote.

Mr. KIM. I am a little confused about this measure. We ask the States to reallocate money from one program to another program and call that a funded mandate. It's troubling me. There are 28 States that disagree with Section 153; they believe this decision should be up to the States. Traditionally, it has been within State jurisdiction. About 60 percent of the States in the entire Nation oppose Section 153 and I'm sure they are fully aware that this provision claims to save lives and taxpayers' dollars. I wonder why so many States disagree. I think it should be under the jurisdiction of the individual States. I don't see why we have to place a Federal mandate on them.

Mr. COOPER. I think all 50 States say that they are in favor of safety. Let them put their money where their mouth is. If they are really for it, let's make sure they are for it. They have an opportunity to require these safety measures; let's let them have an opportunity. If they fail to live up to their public statements of being in favor of having safety classes or motorcycle helmet laws, then I think it is appropriate for the Federal Government to step in and not take money away from them, but to make sure that they use Federal funds to pay for these classes.

Mr. RAHALL. The gentleman from Tennessee, Mr. Clement?

Mr. CLEMENT. Congressman Cooper or Senator Cooper, what can we call you today? [Laughter.]

Mr. COOPER. Jim.

Mr. CLEMENT. Jim. Okay, Jim.

Senator Campbell talked a lot about Colorado. In your statistics, do they have a State mandatory helmet law?

Mr. COOPER. Let me give you the Colorado information, according to the GAO: fatality rate per 10,000 registered motorcycles, before the law, Colorado, 6.18; during the helmet law, 4.71; after repeal of the law, it went right back up to 6.08. That is proof positive even in the State of Colorado, I think, that helmet laws work. So I think we can prove even in the Colorado experience that helmet laws work.

Mr. CLEMENT. Senator Campbell put a lot of emphasis on individuality, freedom, accountability on behalf of an individual. Do you want to share your thoughts, particularly about adults, what freedoms they have or should not have?

Mr. COOPER. Usually freedoms do not extend to burdening our fellow citizens with unnecessary costs and the costs in this area are extraordinary. If you have a traumatic brain injury, you will end up as medically indigent and you will be on the public payroll, public responsibility for sometimes decades.

We think it is very important that people minimize the chance that could occur and we would want maximum individual freedom, but we don't think that freedom extends to unlimited burdens on fellow taxpayers with preventable injuries.

Mr. CLEMENT. Thank you.

Mr. RAHALL. Jim, thank you very much for being with us today and for your patience.

[Mr. Cooper's prepared statement follows:]

Committee on Public Works

Subcommittee on Surface Transportation

Hearing on Implementation of the
Intermodal Surface Transportation Efficiency Act of 1991

Testimony of Congressman Jim Cooper

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Thursday, March 3, 1993

Good morning Mr. Chairman. I appreciate this opportunity to testify before you and the other members of the committee regarding Section 153 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) which has been targeted for repeal.

Section 153 encourages states to enact safety belt and motorcycle helmet use laws. States with both laws are eligible for incentive grants. States that do not have both laws in place will have a small part of their federal highway funds redirected into their own highway safety programs beginning in FY 1995.

I supported Section 153, with its redirection provision, instead of a program that includes sanctions where states would risk the loss of federal funds. Section 153 is key to seeing safety belt and helmet laws in all 50 states. Without Section 153, States will revisit and possibly repeal existing laws.

Why did we enact Section 153 in the first place? Simply put -- Section 153 saves lives and taxpayer dollars.

In 1993, 5 million people were injured in motor vehicle crashes -- half a million seriously enough to be hospitalized -- and nearly 40,000 died as a result of their injuries. Last year, these crashes cost more than $137 billion in lost productivity, medical costs, property damage and other direct expenditures.

Who pays these costs? We all do. Nearly one third of all first year medical costs resulting from motor vehicle injuries are paid for by tax dollars. We also pay through our medical, life and car insurance. A disproportionate number of those injured are on public assistance, and many others become "medically indigent" as a result of the high cost of serious injury. Many victims suffer head injuries or other traumatic injuries requiring extended periods of care and rehabilitation.

Yet the number of deaths and injuries has declined, and health care costs greatly reduced, by states that have enacted safety belt and helmet laws.

In the first year of its helmet law, California's motorcycle

fatalities decreased by 36 percent. Although opponents of Section 153 predicted an increase in non-fatal injuries, California experienced a dramatic 19% drop in injuries. The state also saved millions of dollars.

Some opponents complain that states will lose federal dollars under Section 153 because states will not be able to spend the redirected funds. This is just not true. In every state, the need for federal funds for highway safety programs far outstrips the ability of the state to provide those funds. Last year in New Jersey, for example, the state highway safety office received requests for projects totaling $39 million, while their grant apportionment was only $4 million.

Uses for these funds include anti-drunk driving efforts, traffic safety law enforcement, emergency medical services, programs promoting safety belt and motorcycle helmet use, speed enforcement and pedestrian safety.

Section 153 was written in cooperation with state legislators, and there is growing support for the law among local organizations.

In Senator Campbell's own state, the Colorado Motorcycle Helmet Coalition is only one of 34 state organizations that have endorsed Section 153. A recent survey of Colorado voters indicates that 79% support an all rider motorcycle helmet use law. Safety belt laws are already in place.

Since Section 153 became law, seven states have adopted safety belt or all-rider motorcycle helmet use laws.

This does not include states like California, Arkansas, Alabama, and Delaware which enacted either helmet or safety belt laws in 1991 when ISTEA was under debate. These provisions were specifically mentioned in those state legislatures as one incentive for enacting the bills.

The fact is, without Section 153, with its redirection provisions, we would never have seen these changes.

In brief, those of us who support these life-saving laws believe the facts speak for themselves: safety belt and all-rider motorcycle helmet laws work, Section 153 works, and Section 153 is a fair approach to encouraging states to enact these life saving measures.

The truth is simple: repealing or weakening Section 153 will not only cost additional health care dollars, it will cost lives and increase traumatic injuries.

Mr. RAHALL. The subcommittee will stand in a short recess to answer this roll call vote on the floor of the House.

[Recess.]

Mr. RAHALL. The Chair will set some ground rules for the remainder of today.

As everyone can see, the agenda is a lengthy one and because of that length, we are going to be enforcing the 5-minute rule during the remainder of today's hearings. Witnesses are advised that located on the witness table are a green and a red light. When the red light comes on, you will be expected to immediately wrap up your oral comments.

We do have all of the prepared testimonies and, as I said at the outset of the day, all that testimony will be made a part of the record as if actually read. Members are urgently reminded to summarize their prepared testimony within the 5-minute rule.

We now will hear from the panel consisting of Mr. Dittmar; Director, The Surface Transportation Policy Project, Washington, D.C.; Mr. Scott Bernstein, The Center for Neighborhood Technology and The Alliance for A Sustainable Materials Economy; Ms. Betsy Merritt, National Trust for Historic Preservation; and Mr. Bill Roberts, Environmental Defense Fund, on behalf of The Surface Transportation Policy Project.

Ladies and gentlemen, we welcome you to the subcommittee. We will begin with Mr. Dittmar.

TESTIMONY OF HANK DITTMAR, DIRECTOR, THE SURFACE TRANSPORTATION POLICY PROJECT; SCOTT BERSTEIN, PRESIDENT, THE CENTER FOR NEIGHBORHOOD TECHNOLOGY AND THE ALLIANCE FOR A SUSTAINABLE MATERIALS ECONOMY; BILL ROBERTS, ENVIRIONMENTAL DEFENSE FUND AND ELIZABETH MERRITT, ASSOCIATED GENERAL COUNSEL, NATIONAL TRUST FOR HISTORIC PRESERVATION

Mr. DITTMAR. Thank you, Mr. Chairman, for the opportunity to join you today and for the consideration you've granted in allowing a panel representing our diverse coalition.

My name is Hank Dittmar and I'm the Director of the Surface Transportation Policy Project or STPP. STPP is a coalition founded in 1990 to monitor and participate in the Federal Transportation Act reauthorization debate. We represent over 100 groups concerned with establishing a better link between transportation planning, environmental, social and economic considerations.

STPP's mission is to ensure that transportation policy and investments conserve energy, protect environmental and aesthetic quality, strengthen the economy, promote social equity and make communities more livable. Our panel today demonstrates the broad range of our interests. We have attempted to provide complementary testimony today so that you will hear a different aspect of STPP's position on the National Highway System from each panelist.

We are here today to comment on the congressional designation of the NHS. At this time, I would also like to bring to your attention our concerns about the possibility of substantive changes to ISTEA.

We strongly recommend that the Surface Transportation Subcommittee not move forward with substantive changes to ISTEA at this time. We are particularly concerned that provisions dealing with crumb rubber asphalt pavement and billboards on scenic byways in urban areas not be revised.

Nature has taught us dramatic lessons this year about how our transportation should work. Our overreliance on a small set of roads has resulted in difficult and trying circumstances during the Mississippi River floods, the recent cold front which continues to make conditions difficult in the northeast, and the Los Angeles earthquake which brought down much of southern California's freeway system. As the New York Times editorialized, "Los Angeles did not have its last earthquake, only its latest. Improved mass transit will help it cope with the next one."

A flexible transportation system is a healthy one. Only with a set of alternatives for the same trip can our transportation network respond to emergencies. In Los Angeles, for example, an abandoned railroad right-of-way in public ownership runs parallel to the downed Santa Monica Freeway. Rail service on this route is not available to Angelinos. By contrast, when the Bay Bridge, in my own San Francisco Bay area, was damaged by the 1989 quake, traffic snarls were ameliorated by the BART system.

LA could make better use of its extensive arterial road network and take advantage of car pool and van pool alternatives as well as options by telecommuting. Intelligent vehicle highway system applications such as Smart Streets, which allow for the regulation of traffic volumes by timing signals in real time, provide feedback to improve system performance, further helping the transportation system cope with this disaster. Such choice and flexibility also helps communities respond to ongoing conditions and stress such as congestion, accidents, toxic waste spills and special events, all of which impair the functionability of the highway system.

STPP argues for choice and flexibility and for a national transportation system not out of a desire to destroy the automobile but rather to make the transportation system more efficient and more responsive to its social and environmental context. Transit ridesharing, IVHS and other information applications, pedestrian and bike-oriented designs can work together with the highway system to improve its performance overall.

Is the National Highway System ambitious enough? Mr. Chairman and members of the committee, I have submitted for the record a paper prepared by Donald Camph for the STPP entitled, "The ISTEA and the NHS, One Step Forward, Two Steps Back." It provides some details on the implications of the National Highway System, some recommendations for better integrating it with ISTEA's planning and intermodal requirements. We have developed specific recommendations for the NHS legislation.

Transportation unites our Nation, highways and roads, rail lines, canals, rivers and airports link our regions physically, economically, culturally and psychologically. This physical network is only part of the picture, however. A National Highway System as called for in ISTEA's statement and envisioned by Secretary Peña, would go beyond physical facilities to incorporate information technology,

operational improvements and better links between public and private systems.

Transportation decisions affect and are affected by our built and natural environment, our economy, and more specifically, the individuals and companies that we commonly call users. These decisions must not only respond to forecasts of growth and demand in specific geographic areas but to the larger social, economic and environmental context.

Beyond the NHS, regions need to be linked by a national transportation system which is more than lines on a map. We call upon the metropolitan transportation systems to provide this linkage. We believe this kind of linkage is important also in America's rural areas because of the impact of new NHS routes on rural communities, farmland, wetlands and the like, and we believe also the National Highway System can help to deal with goods movement questions. Freight movement problems are concentrated in the metropolitan areas at intermodal connections and off-system rural roads. It is time, I believe, to begin the process for designating a National Highway System.

We urge the committee to take Secretary Peña's challenge to improve our Nation's transportation efficiency by beginning this process today and in this bill.

Thank you, Mr. Chairman, for the opportunity to appear before you today.

Mr. RAHALL. Mr. Bernstein?

Mr. BERNSTEIN. Good morning, Mr. Chairman and members of the subcommittee.

My name is Scott Bernstein. I am privileged to serve as the President of the Center for Neighborhood Technology and convener of The Alliance for A Sustainable Materials Economy, respectively, as well as a member of the Steering Committee of the Surface Transportation Policy Project.

I am here today to talk about two things. The first is the community equity and participatory aspects of ISTEA as relates to the reauthorization of the National Highway System, and secondly, to make a statement of support for full implementation of ISTEA, Section 1038, use of recycled paving materials.

Our position on both these issues derives from a common set of principles which I will describe shortly which holds that what we build with ISTEA funding is longer lasting, environmentally sound, equitably distributed and captures maximum job benefits for communities which need work.

Since ISTEA was crafted to enable such principles to work, we urge the committee to incorporate the following provisions into its NHS designation. First, NHS routes should not be finalized in metropolitan areas until they are included in the conforming, long-range metropolitan plan which complies with ISTEA. Second, metropolitan planning organizations should have responsibility for selection on NHS projects. Third, any NHS funds should be suballocated to metropolitan areas. Fourth, the performance criteria should be divided for investment in these routes.

In support of these positions, I'd like to submit two attachments for the record. The first is a statement of support for Section 1038 signed by more than 120 organizations from members of the public

health, recycling, environmental and community development communities, among others, with several million members among them. Second is an article that I authored as guidance for the American Planning Association's Environment and Development periodical, "Imagining Equity: Using ISTEA and the Clean Air Act."

I'd like to take a moment to reflect on the status in the metropolitan areas and Secretary Peña's explicit call last December for movement towards a full National Highway System. We meet at a time when more than half the population of the country lives in metro areas of more than 1 million people. In Chicago where I live, from 1970 to 1990, the percentage of developed land increased 55 percent while the population increased only 4 percent. During the same time, daily vehicle miles traveled increased 49 percent, helping to give us the dubious distinction of severe ozone nonattainment status right behind Los Angeles. The economic consequences of all this were devastating. Per capita income increased in 186 municipalities, while remaining level or declining in the older, poor communities.

It has been shown by the Poverty Task Force in the midwest that in 1990, 23 percent of households earned less than $10,000; 33 percent less than $15,000 and 51 percent, less than $25,000. It costs the modal household, unfortunately, increasing a single parent, two-child household, at least $20,000 to live assuming you can get around on a monthly CTA pass of $60. Household income in the region is twice that in the city and poverty is three times higher in communities of color.

All this is in a context in our region and others like it where we must provide services for a developed area that has grown by half with a staggering population and economy, an economy that has shifted its base in such a way that we just can't make it.

Only ISTEA, of all the frameworks for Federal policy, provides a unified framework for turning this around. So to echo Mr. Dittmar's comments, we urge that you give ISTEA and the Clean Air Act amendments as currently constituted a chance to work for four reasons.

First, we can't afford to develop inefficiently. It uses two to six times the cash financial resources to maintain the kind of sprawl patterns that we have developed as shown by studies by the Federal Highway Administration. We just can't afford to do it.

Two is that new highway construction at the edge inevitably leads to a form of taxation without representation. Existing populations are taxed in the name of the supposed economic benefits. I think there have been enough studies to show that we clearly need to use the planning factor tools within ISTEA to question this as new projects are proposed.

Third, if we designate new corridors, simply designating good management and new technology to manage the traffic won't bring the environmental benefits either and we will run out of land and patience before we see the benefits occur. Frankly, the people who are looking for better transportation in older areas just cannot afford on board computers and crash management systems.

Fourth, what we need to keep in mind when designating a system is a system, as Secretary Cisneros put it in the recent book for

the American Assembly that pushes for mobility of people, not vehicles.

I'd like the committee to keep in mind that we have the capacity in our urban areas as shown by the growth of 2,000 community development corporations to recentralize around our transit systems and develop more sensibly. The recent review for the DOT by the Volpe Transportation Center shows that it is possible in cities to make ISTEA work. We need to keep this in mind.

Finally, in two years on December 1, 1995, it will be the second anniversary of Secretary Peña's call for a move towards international transportation service and the 40th anniversary of when Rosa Parks was denied access to the front of a bus and told to move to the back. People around the country are asking are we going to be ready by then to have used the tools in ISTEA, the Clean Air Act and the NHS to have moved us in the right direction. Please keep these recommendations in mind when making your decisions on an NHS.

Thank you again for the opportunity.

Mr. RAHALL. Mr. Roberts?

Mr. ROBERTS. Thank you, Mr. Chairman.

On behalf of the Environmental Defense Fund and its over 200,000 members, we appreciate the opportunity to testify before the subcommittee on the designation of the National Highway System.

As you know, there has been considerable discussion over the past several years on the impact of so-called environmental, unfunded mandates. One recent environmental law that created a number of State and local obligations was the Clean Air Act amendments of 1990. Whatever the merits of the unfunded argument in other contexts, the adoption of the Intermodal Transportation Efficiency Act of 1991, at least theoretically, provides ample funding for transportation-related Clean Air Act obligations.

Unfortunately, the reforms in ISTEA have not fulfilled the promise of adequate financial assistance afflicted by unhealthy air. The funding priorities set forth by ISTEA have been ignored by State departments of transportation as obligation authority has been disproportionately tilted towards traditional highway programs such as the National Highway System and interstate maintenance, and away from programs that could help the Clean Air Act compliance such as the Surface Transportation Program and the Congestion Mitigation Air Quality Program. In addition, funding eligible for intermodal flexibility, which could also benefit Clean Air Act compliance, has rarely been used for modes other than highways.

EDF and many other environmental organizations are deeply concerned that the goal of clean and healthful air in the Nation's cities is being undermined through the implementation of ISTEA. The intent of this committee and others in the Congress was to provide a meaningful relief to the Nation's polluted cities and their efforts to reduce transportation-related pollution. We believe the designation of the NHS is a vital opportunity to fulfill the congressional commitment begin in 1990 and 1991 to help America's cities clean their air.

In order to fulfill the promise of the Clean Air and ISTEA, EDF believes the President's NHS proposal must be amended in several

important respects. We believe that each of these changes will enhance the transportation objectives of ISTEA as well as improve our ability to meet the Nation's Clean Air Act goals.

First, we believe there should be a suballocation of NHS funds to metropolitan areas. As noted earlier, we strongly believe the Nation's nonattainment areas need help to address their Clean Air Act obligations. Although some funds were required to be allocated to metropolitan regions in the STP Program, it is clear after two years of funding decisions that NHS projects have bypassed these areas. Even though 75 percent of the Nation's population lives in urban and suburban communities and 81 percent of travel occurs in these areas, States spent 70 percent of their NHS funds in nonurbanized areas. Even setting aside Clean Air concerns, this allocation of resources makes no sense given the distribution of the Nation's congestion problem. Only 2.1 percent of rural principal arterial mileage is experiencing congestion compared with 70 percent of the urban interstates experiencing severe congestion.

EDF and STPP believe that the Congress should require that NHS funds be suballocated to large metropolitan regions suffering air pollution and congestion problems.

Second, we believe there needs to be a greater emphasis on intermodal investments and funding flexibility. Another major shortcoming of ISTEA implementation has been the failure of States to use funding flexibility that could help comply with clean air. ISTEA clearly and unequivocally permits the use of Federal funds for a wide variety of mobile alternatives. Regrettably, STPP has found that very little funding has been made available for intermodal or nonhighway projects. Only 1 percent of all NHS funds were transferred for intermodal purposes. As a result, EDF supports requiring States to setaside at least 10 percent of their annual NHS funds for nonhighway intermodal.

The egregious shortcomings of the proposed NHS designation is that it was drawn long before State and metropolitan planning requirements in ISTEA were fulfilled. Congress has before it a map that was developed without public involvement, without selection criteria, without an environmental, energy or even economic analysis, and without consideration of the many planning factors set out in ISTEA.

One of the more glaring examples of this shortsightedness is the inclusion of several major new beltways in areas that already suffer severe air pollution problems. For example, the map includes a major new beltway around Atlanta even though Atlanta is currently classified as a serious nonattainment area. How can Congress designate such a major new facility before anyone at the State or MPO level has determined it would comply with the requirements of the Clean Air Act? The Administration does not propose amending the Clean Air Act as part of its designation legislation. So we believe that any new roads proposed should be conditionally excluded from the map until the facilities have been shown to comply with the Clean Air Act.

Fourth, we believe there should be a strong emphasis on maintenance and therefore, require that no new capacity be built in any State that has not properly maintained its NHS.

Finally, we believe this law ought to establish explicit criteria and public process for the designation of the new national transportation system, something that EDF strongly supports, but we believe there needs to be active State and local participation by groups that are interested in this designation before the designation is made and that there ought to be explicit criteria laid out in the legislation to describe what ought to be the basis for including roads and other modes in the national transportation system.

In conclusion, EDF believes that the NHS designation process is a prime opportunity to fulfill the promise of ISTEA to fully fund what was a funded mandate. We are not seeking overhaul of ISTEA; our proposals are narrowly limited to the NHS Program and the President's recommendations regarding the NTS. However, we believe the adoption of these changes could go a long way to dramatically improving the environment while enhancing the Nation's transportation system.

Mr. RAHALL. Ms. Merritt?

Ms. MERRITT. Good morning.

Thank you, Mr. Chairman and members of the subcommittee.

I am Elizabeth Merritt, Associate General Counsel, with the National Trust for Historic Preservation. I'm pleased to have the opportunity to present our views on the National Highway System.

Our overriding concern about the NHS is the potential impact of this program on the quality of life in local communities across the country. ISTEA was a huge step forward in developing a transportation program that enhances rather than detracts from livable communities. It is important for Congress to ensure that the NHS does not undermine this progress. Therefore, it is essential for the NHS legislation to include safeguards that will enable local communities to make sure that their transportation needs are met without unduly impinging on their quality of life.

The first safeguard that we urge you to consider is that the designation of the NHS should be driven by compliance with the ISTEA planning process and Federal environmental laws. We have serious concerns about the process by which these NHS has been designated to date. As Bill Roberts described, the ISTEA planning process has not been used and we strongly oppose the ad hoc creation of a separate NHS that has not gone through the planning process.

The inclusion of new projects in the NHS is particularly troubling. About 2 percent of the NHS represents new facilities. According to the Department, these projects are on existing State plans or in the process of implementation, but those State plans are not in conformance with the ISTEA planning process.

In addition to the planning process, the Department of Transportation also has an environmental mandate that dates back to its original charter in 1966 and that is Section 4(f) of the Act which requires that no projects be approved if it will harm historic sites or parks unless there is no feasible and prudent alternative and unless all possible planning has been included to avoid harm to those sites. This Section 4(f) remains a very fundamental part of transportation policy and the NHS should be consistent with this mandate, not undermine it.

The Federal Highway Administration has very well-established procedures for implementing this law and they should not be preempted by the NHS. In the National Trust's view, the NHS should not include segments or components that have not passed Federal approval under Section 4(f). In the absence of this kind of safeguard, the NHS designation process could be used to circumvent Section 4(f) and other environmental laws by giving a presumption of legitimacy to projects that would not otherwise pass Federal scrutiny. It is not appropriate for the NHS to be used this way.

The controversial Route 710 in South Pasadena, California is a prime example of a project that does not belong on the NHS. Mr. Chairman, I know you are familiar with this project and you will be hearing more about it next week. This project would destroy 1,000 homes, would cost more than $1 billion and has not received Federal clearance under Section 4(f) or any of the other environmental laws. There are feasible and prudent alternatives, including a low build, multimodal alternative which has been endorsed by Congressman Carlos Moorhead, the local congressman, and would cost a fraction of the freeway's price tag.

This project is so controversial that it is currently pending before the Council on Environmental Quality for review and is the subject of a permanent injunction issued by the California State courts. This is exactly the kind of project that does not belong on the National Highway System. Inclusion in the NHS reflects and implicit determination that this freeway is a priority component of the national transportation system. How can such a determination be made when there is widespread disagreement on whether the freeway is needed in the first place, when the local congressman does not support the project, and when the Federal Highway Administration has not even determined whether the project would comply with basic environmental laws?

NHS designation for this route and for other unapproved projects—and there are others; this is just one example—would have the effect of circumventing these existing requirements by giving them a presumption of approval.

At the same time, we think the NHS would be unworkable if it was permanently fixed in stone and therefore, we support allowing modification of the system after designation so that when new routes do become approved, and do go through the planning process, the Secretary can add those routes if it is appropriate.

I will submit the rest of my testimony for the record and in conclusion, I would like to reiterate the importance of intermodalism as the touchstone of our national transportation policy and the importance of allowing flexible design standards in particular for historic communities that find themselves caught up in an inability to comply with the national highway standards based on the interstate model which they find completely destroys their historic and scenic character.

Thank you again for the opportunity to testify and we would all be willing to answer any questions that the Chairman may have.

Mr. RAHALL. Thank you, lady and gentlemen for your testimony.

Betsy, let me begin with you. One of the items of particular interest in your testimony was the matter discussed at the top of page five of your submitted statement relating to design standards.

I'm asking for further elaboration of why you believe the ISTEA provision authorizing design flexibility in historic and scenic places is rarely exercised? I do this because of a situation that has occurred in my congressional district.

My first highway demonstration project was a proposed New River Parkway in the 1987 Highway Act. The National Park Service, the parkway authority that was established, and I all envisioned a meandering, scenic parkway with the 35 mile per hour design limit. Instead, the Division of Highways originally designed a 55 mile per hour straight shot between Point A and Point B. It has taken us several years to undo their handiwork and completely redraft the EIS. Again, I'm asking you to elaborate on this statement: what do you specifically believe is the problem with the ISTEA provision, the AASHTO standards, and what stronger language do you specifically recommend?

Ms. MERRITT. Well, the basic problem is that we currently operate under a set of model standards, the AASHTO standards which are designed with the interstate model as the ideal. In order to exercise the AASHTO provisions, a State must apply for an exemption to those standards and prove an exemption is justified.

In some areas—I understand the District of Columbia is one—the local jurisdiction has taken advantage of applying for those exemptions but most States have not taken advantage of it and there is no incentive or mandate for using different standards in sensitive areas. It's only the authority to be flexible but no actual incentive to be flexible. We find this is a very serious problem. We'd like to see some language that would make the use of alternative standards mandatory in special areas.

Mr. RAHALL. So making those alternative standards mandatory is the one specific recommendation you have?

Ms. MERRITT. In response to this issue, you mean?

Mr. RAHALL. Yes.

Ms. MERRITT. Yes.

Mr. DITTMAR. Mr. Chairman, STPP has recommended that your legislation, specifically with respect to design standards, say two things, first, that we codify the statement of Administrator Slater that the NHS is not intended to be upgraded to a single, uniform design standard, but that it shall be flexible and it shall be suited to the needs of the communities it serves; and secondly, that we ought to state the National Highway System design should be based on safety but also should include historic, scenic, community, pedestrian and bicycle concerns so that those considerations are up front for AASHTO and the Federal Highway Administration when they sit down to consider their design standards. I think that would be excellent guidance from this committee.

Mr. RAHALL. While I may not agree with everything that has been in your submitted testimony and stated testimony today, I do think this panel brings a somewhat different and perhaps refreshing view from what we normally hear.

One of the major themes of this panel is a desire to provide a suballocation of NHS funds to metropolitan areas. As you are aware, I represent a rural area and many counties in my district go by that saying, "We ain't got to wreck a four-lane." My question

to you is, why should I be disposed to act favorably on earmarking highway dollars to the cities?

Mr. ROBERTS. Let me try to respond to that. What we are asking for, Mr. Chairman, in the way of a suballocation is really in those States that have a severe air pollution problem where people are actually sick and affected by air pollution, that this committee really follow through on the commitment that was made in ISTEA to provide the necessary resources for those communities to receive assistance.

What we have specifically asked for is a suballocation in those States that have large metropolitan areas that are afflicted by air pollution problems. There are many States in the country that don't have such areas, West Virginia being one of them. So there would be no specific—in our proposal anyway—suballocation required in a State like West Virginia.

It would be required, however, in States that do have large metropolitan areas suffering from air pollution. We have heard from air pollution directors, mayors and others who are anxious to try and provide the necessary resources to cure their air pollution problems that many NHS dollars are being diverted elsewhere in the State. I think this is at least just a partial effort and it is by no means all the States' NHS money, but a partial effort to assist those communities who really need the help to comply with the Clean Air Act.

Mr. DITTMAR. We would also propose that there be a guaranteed amount of funding for rural areas as well, that there should be a requirement that in areas of less than 5,000 in population, that the State should expend an amount equal to the funds that were spent on the old secondary road network over the term of the Act. That would provide, we believe, boundaries for the States to work with to ensure that no part of the State was left without the benefit of National Highway System funding.

Mr. RAHALL. Another point this panel has raised is the concern that the formulation of NHS to date has preceded the full implementation of ISTEA's planning requirements. In addition, as you pointed out, Betsy, there is some concern with Section 4(f) compliance.

Last week, the GAO testified that the Congress may want to conditionally approve the NHS so as to be in a position to review any proposed additions such as intermodal connector routes which would then be subject to future congressional designation. What is this panel's view on that conditional approval of NHS?

Mr. DITTMAR. We have suggested something fairly similar which is that your action should recommend NHS to the planning of the process and that the State plans and the metropolitan plans would need to incorporate the congressional suggestions, to analyze them and integrate them with the national transportation system. Our thought would be that you could begin the process of directing the States and the MPOs to look at the national transportation system. In essence, we would concur with the General Accounting Office recommendations.

Mr. ROBERTS. Let me add one point to that. I guess our view was and is that the National Highway System and the National Transportation System ought to be viewed as a dynamic description of

what is important in transportation for America. To expect that in 1994, we're going to be able to accurately predict for all time what are the most important modes and highways in America seems highly presumptuous to us, so that the process for planning that will go on for years ahead of us ought to in some way be able to affect and change the priorities as the Nation sees fit, either for economic, environmental, or other reasons.

Ms. MERRITT. I'd like to add one more qualifier. From the National Trust perspective—we're the self-appointed 4(f) enforcer I suppose—our concern is that even conditional approval for new segments have not received environmental clearance and creates an inappropriate presumption of approval for these projects. Since the vast majority of the NHS is existing segments, conditionally approving that portion makes sense, but it doesn't make as much sense for the portions that do not exist and have not been approved yet.

Mr. RAHALL. Let me ask one last question to you, Mr. Dittmar. In your testimony, you state "The STPP also strongly opposes any attempts to weaken billboard controls on designated scenic byways." Let me give you this scenario in which many of us have found ourselves.

We are driving down the highway late at night, very tired, eyes weary, rain is pelting the windshield. All of a sudden through our barely opened eyes we see a billboard that tells us about a place of lodging that we've been looking for all night. What do we do—scream, "eek, a billboard," try to ignore it, or what? [Laughter.]

Mr. DITTMAR. I felt that way as I was walking through the puddles to the Metro station today to get here.

We think there are alternatives to billboards and the current Act does not prohibit signs on structures, nor does it prohibit the installation of signage on the roadway. In fact, we have it in my State of California where at every exit, you provide a sign which says not only that there is food there but who is providing the food; the next sign will say not only that there is lodging but who is providing the lodging. Those kinds of tourist-oriented signage can help to ease your weary eyes as well.

Mr. RAHALL. The gentleman from Wisconsin, Mr. Petri?

Mr. PETRI. I'd like to thank you for coming and for your testimony. I do have a question or two.

I think perhaps several of you referred to it, and Mr. Roberts, I know, in particular talked about trying to improve the National Highway System Program with an intermodal setaside of 10 percent. Could you expand on that concept a bit? What are we talking about in terms of infrastructure or other expenditure that would qualify for such a setaside?

Mr. ROBERTS. I'd be happy to. One of the things STPP continues to believe in very strongly is the funding flexibility that was put into the law by this committee in adoption of ISTEA. One of the things we're dismayed by, however, is that in the last two years of having that authority, the States have failed to aggressively explore alternative ways of investing funds.

Clearly, the President is contemplating an expanded version of the Nation's transportation system by recommending the development of a National Transportation System of which NHS would be

a part. We feel in order to jump start a process to get the States to begin to think, and metropolitan regions for that matter, more imaginatively about how they invest their money and become much more intermodal, that setaside makes a lot of sense.

The kinds of projects we're thinking of I think would involve anything from improving port access, rail head access, helping to facilitate connections between highways and transit systems for commuters, any number of projects we think that at least get us away from thinking so singlemindedly about one mode and begin to think about how all these pieces are supposed to or could fit together. I think that setaside is a small step to try to do that.

Mr. PETRI. Thank you very much.

Mr. RAHALL. The gentleman from Massachusetts, Mr. Blute?

Mr. BLUTE. No.

Mr. RAHALL. The gentlelady from Washington, Ms. Cantwell?

Ms. CANTWELL. No.

Mr. RAHALL. The gentleman from California, Mr. Kim?

Mr. KIM. No.

Mr. RAHALL. The gentleman from Wisconsin, Mr. Barcia?

Mr. BARCIA. No.

Mr. RAHALL. Thank you very much. We appreciate your testimony this morning.

Our next panel is composed of the following individuals: Mr. Rod Diridon, Santa Clara County Transportation Joint Conference Committee, San Jose, California, testifying on behalf of the American Public Transit Association; Mr. Jack Gregory, Legislative Chairman, Community Transportation Association of America from Nashville, Tennessee; and Mr. Dale J. Marsico, Chief Administrator, Brazos Transit System, College Station, Texas, on behalf of the Community Transportation Association of America.

Gentlemen, we welcome you to the subcommittee. We do have your prepared testimony and it will be made a part of the record as if actually read. The 5-minute rule will apply and you are encouraged to summarize your prepared testimony.

Mr. Diridon?

TESTIMONY OF ROD DIRIDON, SANTA CLARA COUNTY TRANSPORTATION JOINT CONFERENCE COMMITTEE, ON BEHALF OF AMERICAN PUBLIC TRANSIT ASSOCIATION; JACK GREGORY, LEGISLATIVE CHAIRMAN, COMMUNITY TRANSPORTATION ASSOCIATION OF AMERICA; AND DALE J. MARSICO, CHIEF ADMINISTRATOR, BRAZOS TRANSIT SYSTEM, COLLEGE STATION, TX ON BEHALF OF COMMUNITY TRANSPORTATION ASSOCIATION OF AMERICA

Mr. DIRIDON. Thank you, Mr. Chairman.

I would hope to see my good friend and colleague from Santa Clara County return to the hearing some time today and when he does arrive, I know he is very busy, our great Congressman from Santa Clara, Norm Mineta, should receive our greetings and we should let him know how much we appreciate the work he does, as we do appreciate your work, sir.

With your consent, I'll summarize my comments. I'm sure that will be helpful to you and may allow some additional time for questions to the panel.

May I begin by discussing some of the key concepts of ISTEA. We know the ISTEA calls for the development of an NHS, which is why we are here today for another very important component, its vision of a surface transportation system that is intermodally integrated. It also calls for transportation systems to be related to other critical needs, such as the environment and long-term planning. APTA understands the need for an NHS but we believe that an emphasis on roadbuilding at the expense of other modes is very short-sighted.

Highway programs used to be justified in terms of interstate commerce. Now we understand that interstate commerce will bog down unless alternatives are available to cars on most of our crowded freeways.

That is why today we ask Congress to mandate the development of a national transportation system, with the NHS being one of its components. We realize the ISTEA deadlines make integration of an NTS every year very difficult but the legislation in debate here today could and should require the integration of the NHS into an NTS in time to help frame the debate on your next reauthorization legislation in 1996.

APTA and its partners have produced America's new surface transportation network. An example is here in the map that you might want to observe; it's in preliminary form but it's a great step forward to an integrated approach. The NTS map demonstrates the linkage of the Nation's high capacity shared-ride, surface transportation services, public transportation systems, intermodal terminals, current and proposed AMTRAK passenger rail lines and high speed rail and MAGLEV corridors.

We urge you to support the concept of an NTS that includes the principle elements of America's new surface transportation network. We think that the legislation this subcommittee will draft is a good opportunity to improve ISTEA and an appropriate vehicle for developing an NTS.

The transit industry feels the ISTEA framework is fundamentally sound but we have several important recommendations to help with its implementation. As you develop this legislation, APTA recommends that all components of an NTS, including the highway element, be fully integrated in the planning process established in the metropolitan planning areas with serious congestion and air quality problems.

The Federal Government must reinforce, through its policy and funding decisions, local plans that comply with the mandates created by ISTEA—the Clean Air Act, the Americans with Disabilities Act, and other laws. At present, planning regulations don't adequately guarantee that metropolitan area NTS routes will be fully integrated into the metropolitan planning process. This lack of coordination with local planning will undercut a major goal of ISTEA's authors. How can an MPO comply with Clean Air mandates if decisions on major roads are outside its control? The NHS and NTS should be incorporated in the metropolitan planning process, not imposed upon it.

Proposed NTS corridors in metropolitan transportation management areas should conform with the congestion management and

clean air attainment plans. MPOs should determine the most appropriate way to improve the mobility on NTS corridors in their areas including investments in high capacity rail service. That needs not be directly adjacent to highway routes. Otherwise the MPOs will have a much harder job meeting clean air targets and linking the transportation process to land use planning goals. For some congested highways, the key may be transit routes in busways, freightways or other transit investments.

I realize the time has expired. We have quite a bit more to share with you and maybe we can cover some of that during your question and answer period. We do encourage you to integrate the NTS requirement into your current law. I'll touch other points in the questions.

Thank you, Mr. Chairman.

Mr. RAHALL. Mr. Gregory.

Mr. GREGORY. Thank you, Mr. Chairman for having us here today.

I would like to thank our Congressman, Bob Clement, for doing such an excellent job on the Transportation Committee.

My name is Jack Gregory and I am here today in several capacities. I serve as Legislative Chairman of the Tennessee State Association of Special Transportation and the Legislative Chair for the Community Transportation Association of America. More importantly, I am the Division Manager and Director of Operations for the Mid-Cumberland Human Resource Agency, which is a large social service agency in middle Tennessee which is also the transportation provider for that area. I also bring you greetings, Mr. Chairman, from my member, Vickie Shaffer and the entire West Virginia delegation.

In the State of Tennessee, there are 10 Section 18-funded rural transportation systems that in fiscal years 1992 and 1993 provided more than 1 million trips in the State and traveled over 7 million miles to get passengers to jobs, medical care and other basic needs. One-quarter of these trips were provided to people with disabilities in Tennessee. We have 437 vehicles in our collective fleet, 45 percent of which are lift-equipped.

During the last decade, as Tennessee's nonurbanized population was growing, Federal Section 18 funds grew by nearly 34 percent. However, to keep pace with the growing demands for rural transportation, the State has increased its share of our network support by a whopping 479 percent during that period.

I appear before you today as a representative of the Community Transportation Association of America, a national organization of more than 800 rural, small urban and special community transportation transit providers. Like my own network of rural transportation agencies in Tennessee, our members spend their days linking people to jobs, health care and other basic services.

CTAA advocates on behalf of the particular needs and problems of the Nation's smaller transportation providers. On behalf of our members, Mr. Chairman and members of the committee, we want to thank you for your past efforts to support the smaller transportation system, those several rural areas and small urban areas of under 200,000 population.

CTAA members have embraced the principles set forth in the Intermodal Surface Transportation Efficiency Act of 1991. Today I want to share with you the items of a technical nature which we feel would serve to strengthen the current transit network that is in place. In addition, we would like to begin to set the stage for your upcoming work on the reauthorization of ISTEA and the National Transportation System.

As my co-panelists will speak about the small urban areas, I will limit my remarks today mainly to rural transportation.

In a national study currently being conducted by CTAA of Section 18 rule providers, we have found there are about 1,150 systems currently operating, providing more than 100 million trips a year. The rural fleet numbers around 13,000 vehicles representing a 28 percent increase since 1989. About 45 percent of these vehicles are wheelchair accessible, 30 percent of the vehicles in the national fleet are over 6 years old. Of the vans in service, we make up over half the fleet; 36 percent are beyond their 5-year period expected life.

While roughly half of our Section 18 agencies serve countywide areas, another quarter operate in multicounty service areas. In those counties, their levels of service are woefully low. For example, in 10 percent of those areas served, the yearly trips provided are equivalent to less than 25 percent of the households without a car. The relative service level in urban areas is equivalent to hundreds of trips for careless households. Even more striking, however, is that 35 percent of the Nation's nonurbanized population is still totally underserved by public transportation.

With regard to funding, the critical rural operations reflect a large number of small providers doing more with less and operating on a shoestring budget which for the medium rural transportation budget is only slightly more than $150,000 per agency.

We are particularly pleased that the Administration's transit budget for fiscal year 1995 proposes funding for the first time at the full level your committee authorized for Section 18 programs. We applaud your efforts in this regard and hope that the appropriations process follows soon. We are very much in favor of keeping the formula funds at the fully authorized levels as these funds make up the core of the critical Section 18 program.

I see my time is up, so in conclusion, we would like to reiterate funding for the R transportation and also we are very concerned with ICC regulations across State lines and inner city bus systems, Section 18(i).

Thank you, Mr. Chairman.

Mr. RAHALL. Mr. Marsico?

Mr. MARSICO. Thank you, Mr. Chairman.

My name is Dale Marsico and I am with the Brazos Transit System in College Station, Texas. Brazos Transit provides services in eastern Texas and serves about 14 counties and upwards of an area that includes approximately 800,000 people.

In my prepared remarks, I touched on a number of issues that I felt were important as an operator who provides public transportation in the small urban environment. Of those issues, I would only like to talk about two.

One concerns the Administration's proposal to reduce operating assistance in the smaller urban areas. This is a significant issue for me and has become a more significant issue in the last two years. By an increased significance, I mean the higher cost that we have incurred in many systems about my size in providing services under the ADA.

The Americans with Disabilities Act, which we fully support, requires us to provide another level of service. That increased level of service operates kind of in my community as a duplicate of the fixed route bus system. We have many riders who cannot access fixed route transportation that really need to use more demand services that were envisioned in ISTEA. We have added significant equipment and capital in the last several years to include these riders. Operating assistance from the Federal level supports operating that part of our transit system.

Last year also, we increased ridership from people who are currently being handled differently in the Medicare system, that meaning that they come out of hospitals sooner, they come home sooner and they spend less time in institutions. These people use the same kind of services under the ADA that disabled individuals need and these services are also funded, in part, by the operating assistance available from the United States Government.

We need to have a more balanced, rational approach to changing operating assistance and we just can't change it in one year. Unfortunately or fortunately, depending on how you would argue, we have a State that only meets its legislative requirements on a two-year basis. We would be caught in the middle of a two-year cycle trying to cope with a decrease in Federal assistance at this time and a decrease after our increase in service last year would create somewhat of an extremely chaotic situation for some of our communities.

The only other thing I'd like to touch on that I consider important concerns the planning issue. Areas outside the metropolitan planning organizations that are in the ISTEA program need to be represented. As a matter of fact, rural communities that aren't covered by MPOs need to have access to the neighboring MPO structure for ISTEA provisions. These are important issues in terms of mobility planning for smaller communities that feed individuals and riders and workers into neighboring urban areas.

Despite the other issues that are on my testimony, these remain our two most important. Fundamentally, we would like to see the committee and members in general continue to support a partnership in operating assistance and Federal assistance at the current level is the kind of partnership that we need in the short and long-term for my community and other communities like mine in Texas.

Thank you, Mr. Chairman.

Mr. RAHALL. Thank you, gentlemen, for your testimony.

Let me begin my questions with Mr. Diridon. I commend you for your continued success in implementing ISTEA's provisions regarding the Surface Transportation Institute located in San Jose. I think you are doing a terrific job there and I know that Chairman Mineta, if he were here, would agree with me on that statement.

My first question is, how does APTA envision pulling together the thousands of affected transit interests, including resources like

your Institute, to work with DOT to further evolve the NTS from a map and a concept into a solid legislative proposal?

Mr. DIRIDON. That is kind of like offering the proverbial elephant and finding out where to take the first bite. I suppose Nike told us how—just do it.

We do have a Transit Now Coalition that has over 200 different organizations represented, including the principal national organizations. That national Transit Now Coalition I think will be a starting point. We have within it, the League of Cities, Conference of Mayors, National Association of Counties, the Governors Conference and many others as well as private industry. We are very happy to work with the smaller properties. We feel that we are all part of the same team and working from that organization outward, I believe that we have the access, the contacts, to bring together the flesh that will fit on the bones that are presented to you on the map to my right.

We have already begun, we have a first cut. Certainly, we need to work with the local organizations, the smaller transit organizations in the rural communities, the metropolitan planning organizations, and the State DOTs, and that needs to come together not unlike the National Highway System map has come together this year.

To conclude this process without allowing us to conclude our process is to have only half a loaf. When America is competing in a world market where the one who wins is the one who gets people to and from work the fastest and the one that gets the goods to and from the marketplace the fastest, and we only have half a loaf, we are not going to win that economic battle of the 21st century.

So we ask the opportunity to put it together for you and let you judge then the value of the product as you move into your debates over reauthorization in 1996.

Mr. RAHALL. If you don't have a specific legislative proposal you feel we should include in an NHS authorization bill this year, what timetable do you think should be set for the overall NTS?

Mr. DIRIDON. Mr. Chairman, I have a sense that to try to prepare a proposal for you this year would short change the proposal and would also cause some violence with the deadlines in ISTEA. We would certainly be able to accomplish that objective though if you allowed the current NHS approval to be preliminary to our final offering to you. We would certainly be able to offer you that proposal by the beginning of your ISTEA debates in late 1995 and early 1996.

Mr. RAHALL. Do you suggest any timetable for NTS?

Mr. DIRIDON. That is when we would expect to be able to have an NTS package to you, late 1995, early 1996.

Mr. RAHALL. As I understand the current privatization requirements at FTA, which have been proposed to be rescinded, a transit agency must review every one of its routes every 3 years, whether or not any changes are anticipated to those routes, to determine if the transit service on those routes should be provided by a private operator.

Does APTA have an estimate of the cost of this and other regulatory burdens related to the policy of forced privatization of transit

service that was established in 1984 by the Reagan Administration?

Mr. DIRIDON. Mr. Chairman, we don't have an estimate available for you today but we can obtain that for you. I can tell you that it is horrendous. Not only is it a horrendous estimate in terms of cost, but it is a terrific cost in terms of local credibility because whenever we get into those kinds of discussions in a public forum at the local level, immediately the local transit riders, local transit employees begin to feel that their system is going to be disrupted and it causes a real schism and ability to communicate between those very important groups.

I believe the current Administration's intent to downgrade that proposal should be matched by your elimination of that requirement in the bill.

Mr. RAHALL. If you could get those costs to us, it would be very helpful.

Mr. DIRIDON. We certainly will.

Mr. RAHALL. I see our full committee Chairman has entered the room, so I will suspend my further questions of the CTAA and recognize our distinguished full committee Chair, Mr. Mineta.

The CHAIR. Thank you very much, Mr. Chairman.

I just want to thank you for your many years of dedication and the fact that you have really been in the forefront of so many innovative things that have happened in the transit area and in terms of your educating me from your perspective as a local operator and what it is like to be at the other end of the legislative pipeline, what we're doing and how it impacts at the local level right where, as they say, the rubber meets the pavement.

Again, I want to thank you very, very much. I have no specific questions of the panel at this point, but I do want to thank the panel for being before us. I do want to just mention that this whole issue of the national transportation system is the kind of thing APTA has been working on and bringing a total holistic picture to transportation needs is really very, very important. I appreciate it.

Thank you very much.

Mr. RAHALL. I have a few questions for CTAA I would like to ask now. Your concerns in regard to the Section 18(i) inner city bus program are concerns with which I sympathize and understand. Are you familiar with proposals to shift the source of a portion of the funding for this program to the Section 3 program and would you be more likely to support Section 18(i) if we were able to accomplish this shift?

Mr. GREGORY. I think that it is fine. I think a lot of States are grappling with 18(i) now. A lot of States have not done anything with the money for 18(i). I know there has been some governor certification of 18(i). I think we would probably support that. We are needing operating assistance as well. Of course you can only transfer 18(i) money into Section 18 operating assistance if there is a governor certification.

Mr. RAHALL. Let me ask you another question with regard to the RTAP. I am very pleased to hear of its continuing success. I am disturbed, however, by the failure of ISTEA funding to keep pace with this program's goals. Would you share with us some of the specific types of technical assistance and training efforts which

have made RTAP, as it is called, so successful in the past and which we will be able to duplicate with increased funding under your proposed amendment?

Mr. GREGORY. I believe it has helped on a local level—driver's education, it has provided great assistance concerning lift vehicles, for drug and alcohol testing it has also been very educational as well in our group.

Mr. MARSICO. I think that we have seen, since its implementation, a greater capacity for technical assistance at the State level as well. Certainly I think considering the needs of the smaller systems for technical assistance, it has provided a dual source of technical assistance that was not available prior to implementation of the program.

Mr. RAHALL. I'm going to suspend my questions at this point and recognize the gentleman from Massachusetts, Mr. Blute?

Mr. BLUTE. Thank you, Mr. Chairman.

I want to thank the panel for their testimony.

I know you are concerned about the Administration's budget proposal to cut operating assistance by 25 percent. I met recently with some of my regional transit authorities and they are very concerned about it. I wonder if you could describe what effect you think this would have on transit properties, both large and small. Also, would the increase in capital expenditures in the Section 9 Program as proposed by the budget, have any effect on the ability of transit properties to operate effectively?

Mr. DIRIDON. Mr. Blute, this is an important point that I didn't get to touch on because of the lengthy testimony. There is a saying in the transit industry that you can't buy, and you can't build it if you can't operate it. That is where we are now. We have capital funding that you provided nearly at the level of ISTEA authorization and in many cases, we are not able to buy the buses, we are not able to install the new line that you're providing capital assistance for and that we badly need because we don't have the operating assistance to show long-term ability to use the asset that you would pay for.

It is at crisis level right now across the United States. Every one of our transit agencies across the United States is underfunded seriously. The Chair asked a moment ago about the issue of privatization. Goodness, if we could save a dime by privatizing or doing anything else and still maintain our systems, we would save the dime at this stage in order to be able to maintain route miles. So you don't have to encourage us in terms of privatization or anything else; we will do what we can do to operate the system less expensively and still maintain safety and productivity.

We are sincerely appreciative of Congressmember Nadler's dear colleague letter that is being circulated now encouraging that the 25 percent cut be added back. We heard some encouraging news from Chairman Mineta earlier today and we hope that it carries through to the final action by both Houses and the President is willing to sign that.

However, to stress the issue again, we cut back our routes by 10 percent in Santa Clara County, one of medium size—I think it is the 18th largest transit system in the United States now—by 10 percent 2 years ago, by 10 percent last year, and we face another

10 percent reduction this year, even without the Federal reduction. With the 25 percent reduction on the Federal side, that 10 percent this year will go up to about 25 percent. We are moving to the point now where we are not running a transit system anymore, we're running a few lines.

Mr. MARSICO. I'd like to get one thing on this issue. There seems to be an opinion sometimes, I'm afraid, that if you use Federal operating assistance, you're a bad manager. I consider myself to be a good manager but I will tell you, of the 20 smaller transit systems in our State that receive Section 9 funds and use them for operating, we did a survey about 2 weeks ago and all 20 of those people were down to reductions in existing services somewhere in the neighborhood of 30 to 35 percent.

As long as the law also mandates the services under ADA, with the half farebox return price for elderly and disabled, we certainly are not going to make up that reduction out of the farebox. It is unrealistic to believe that is going to happen this year.

The other thing is, as you know, almost all of the mayors that I have seen in the communities that we work in have all been here talking about police protection being a priority. It is going to be very hard now to open a new fight for additional local revenues at a time when everybody in our community agrees that we need a higher investment in law enforcement. We are just not ready to do it this year and we weren't ready to do it last year.

I like to point out that we think this is a partnership and some of the people who use our system are people who are mandated to use it, are truly worthy and in need of it but we need people to help pay for it.

Mr. GREGORY. Our State, in particular, has increased transit funding and operating assistance by 428 percent in the last 10 years. I know that is rare but our State is one of the leaders in transit funding. There are many States that do not help the transit providers in any way. That is a major problem.

Mr. BLUTE. Thank you very much. No further questions.

Mr. RAHALL. Chair Mineta?

The CHAIR. Mr. Chairman, I apologize for not being here when the testimony was given but I notice in your testimony, you say that one problem is that there is no guarantee that metropolitan areas will receive their fair share. You go on to say that "APTA supports a concept of equity and we want to stress its importance." Does APTA have a formula or some idea as to how that money might be distributed in order to ensure fairness in the distribution of these funds?

Mr. DIRIDON. Yes, we have a concept which we will share off the record, it's not uncomplicated. The concept is built around categorizing transportation agencies and programs by type, making sure there is interrelationship between those types. We are all in the same business, there is not one more important than another. It works together like a very carefully-tuned machine and we can't forget any portions.

The difficulty is that the metropolitan areas are faced with terrific difficulties brought on in part by the down turn in tax revenue across the United States during this recessionary period and brought on additionally by the special mandates relating to things

like the Clean Air Act and ADA which have created an extra burden on the areas represented by MPOs.

So we are hope that some kind of suballocation procedure that we might share with you could be included in your legislative program and I believe it will serve all facets of the transportation community.

The CHAIR. Are there any other aspects of ISTEA funding that you might consider to recommend for change?

Mr. DIRIDON. We do have a rather detailed presentation that was provided in writing, Mr. Chairman. If Chairman Rahall would care to have your staff go through that, even that document is a summary and we have quite detailed information on the different elements. We have a specific formula for allocation between the modes to old and new systems, rail and bus and those kinds of things in order to try to protect the issue of equity and to maintain rapport with our smaller compatriots. That can be provided to you in detail.

Our primary concern though is the issue of the NTS, the hope that you would require that the NTS be developed as part of your legislation before the NHS program would become final, although it may very well have to be adopted in a preliminary form this year, and secondly, the operating assistance, that you encourage your associates to return that operating assistance to full authorized levels, at least to last year's levels.

The CHAIR. I will take a look at that more detailed submission.

Let me ask both Mr. Marsico and Mr. Gregory, since my own background is insurance brokerage and both of you refer to the insurance issues, has the CTAA done a survey of the States to ensure some uniformity exists with regard to the insurance requirements?

Mr. GREGORY. Insurance requirements for like ICC, is that what you're talking about?

The CHAIR. If we are to, say, deal with a waiver of Federal insurance requirements, is there a survey you would have in terms of the kind of coverage that would be imposed on small transit operators?

Mr. GREGORY. I don't think any State is really uniform. I think there is some regulation in place but specifically to ICC regulation, it is very much a problem I know in our State which is 585 miles east to west and 110 miles north to south. If you go right across the State line, we are bordered by eight different States and we have to have an additional $5 million worth of liability coverage which is very expensive for a small transportation provider.

The CHAIR. If the ICC requirements are too high, if we were willing to provide some kind of Federal waiver, would the States be willing to pick up on a lesser amount?

Mr. GREGORY. I think so. I think more importantly though is probably amending the Bus Regulatory Reform Act of I believe 1982 where we can travel back and forth. I will give you a specific problem in our State. We have one city, Bristol, Tennessee, which is split right down the middle between Virginia and Tennessee. To take a patient in need of medical care of a specialist right across the city requires an enormous amount of insurance. I think a waiver would definitely be a step in the right direction.

The CHAIR. Mr. Marsico, do you have any thoughts about whether or not if we were to grant some kind of waiver at the Federal

level as to whether or not there ought to be some kind of a State minimum requirement to provide the coverage and is that something that would be doable?

Mr. MARSICO. I think you will find that there are already standards even in I think all of the 50 States on minimum standards and limits for public transportation carriers. I'd also like to add that some of our smaller operators, Section 18 programs in particular, are often not units of government. Some of them are not-for-profit corporations that are incorporated in our State and they are in an entirely different insurance market than a public organization like myself when they cross the lines. They are going to have an increased burden in that respect.

I think the waiver system is one way to approach that problem. The other might be that public transportation provided by public agencies or not-for-profit agencies across State lines needs to have a lower threshold. A lower threshold in this legislation to establish this special classification and carry of service might resolve the issue without having to look at 50 sets of waivers.

The CHAIR. Thank you very much.

Mr. RAHALL. The gentleman from California, Mr. Kim?

Mr. KIM. I'd like to commend your fine work. I used to be a member of APTA myself until I became a politician. I'm no longer a member because it is politically incorrect.

I would like to ask you a couple of questions. I understand 80 percent of the American population lives in some kind of metropolitan area, however, 62 million people still live outside those areas. You mentioned that half of the elderly people who live in rural areas are in poor health and have no public transportation system they can depend on.

Your goal is to reach not only metropolitan areas but also rural areas, right? I commend you for that but let me share some of my own experience. I was a mayor of a small town called Diamond Bar which has a population of about 60,000, located about 30 miles east of Los Angeles. We had a dial-a-ride program which meant that any senior citizens who needed some transportation, they simply called and we provided transportation with a five minute response time because it was on a per demand basis.

If you talk about public transportation systems, the problem is you've got to run it regardless of whether there is a passenger or not. It is scheduled running. I've seen some systems they have in other parts of California that people complain are running empty, back and forth empty all the time.

Don't you think our future approach should be more on a demand basis, rather than some kind of fixed schedule, mass transportation system trying to reach all parts of a rural area?

My second question is, the 25 percent cutback on the mass transportation operational budget, your report says the fare will go up by 23 percent. What would the impact be, do you think people would give up riding this mass transit or try to find some other mode of transportation? What do you foresee by raising this 23 percent?

Mr. DIRIDON. Sir, maybe I would defer the first question to the smaller properties. The larger properties that have demand certainly should be route bus services because when there is demand

there, they are more efficient to run, route bus and rail service, so the demand and response question probably should best be answered by the smaller properties. Then I would like to comment on the fare increase issue.

Mr. GREGORY. Most of our systems are demand responsive. I know in our State we require some 24-hour reservations for certain things, but it's much less than that, within a hour or so, if the vans are available.

Mr. KIM. You are trying to incorporate the NHS system with the NTS system. Does that mean that demand ridership is part of the NTS system?

Mr. GREGORY. Right.

Mr. MARSICO. I think in my remarks I was trying to raise the concern that in the small operating environment, there has been an expansion in the kinds of service that you've just said is the most responsive and doesn't run around empty. I guess my concern is that a significant portion for the increase of operating that system was added in under Federal operating assistance last year. What is at jeopardy is that system because it cost just as much for us to put a bus driver and a trained individual inside that piece of equipment as it does for that larger piece of equipment.

I think what people sometimes misunderstand or don't see is the fact that a public transportation system provides both that long haul bus and that demand service. In our own case, almost half of the operating assistance that we receive is devoted to that kind of program and to that kind of service.

I think as communities age, particularly mine since it is about that 60,000 population you're talking about, we have a significant number of people who can only use that kind of service, and a significant portion of our operating assistance is devoted to it. If you cut that operating assistance, everybody is going to lose part of the service. Those people are in less able means to find other kinds of service.

Mr. DIRIDON. I think we all agree that the cut in operating assistance hurts the smallest properties worse. The proportion of the total operating budget of the smaller properties is more heavily subsidized by the Federal Government than in the larger properties. So we have great compassion for them and are anxious for you to maintain that operating support in part, for their sake, but also for the larger properties.

You mentioned 23 percent fare increase in order to compensate for the Federal operating cuts, remember, that is not the first increase though. We have had operating reductions in our Federal subsidy since 1980, successive years of operating reduction. We have had successive years therefore of fare increases during that period of time. It is no wonder that nationally transit ridership is down a bit. That ridership is down only fractionally in the face of year after year after year of rate increases which have now priced transit out of the range of a significant portion of our needy population. That is in direct contradiction with this Administration's desire to provide universal health care. How do you provide universal health care to needy people when they can't afford automobiles and we are pricing transit out of their reach? That is a dichotomy and a contradiction that I hope this Administration works out and that

you, as members of Congress, are able to guide them in the process of working it out.

Mr. RAHALL. The gentleman from Wisconsin, Mr. Barca?

Mr. BARCA. Following up on that same point, when Secretary Peña was here, he indicated that the goal of the Administration was to do more in the area of capital expenditures. Basically, they thought there was sort of a transfer of funds that way. I know in talking to our public transit directors in my home district in Wisconsin, they have told me very strongly that they would prefer, if there is not enough money to do something in both areas, they would much rather strongly keep the money in operating assistance because their analogy has been, what good does it do to buy new buses if people can't afford to ride them. I just wonder if that is your strong sentiment as well? If you have to make that tough choice, is that what you'd like to see?

Mr. DIRIDON. Sir, I don't believe that's the question, if I might offer a thought. The trust funds have significant balances in them. We have difficulty in obtaining access to those balances because we don't have long term contracting authority, which is something you may want to look at, but those balances need to be spent down. As they are spent down, there will be capital funding. Capital funding is not the shortfall area. Remember also that the outlay on capital funding is about one-sixth as rapid as the outlay in terms of operating funding. The operating budget is spent dollar for dollar. Capital funding is spent much more slowly. So the capital side is not your problem.

We do need those funds because we have had a long period of deferred maintenance and we have had a long period of time that we haven't been able to replace vehicles and extend systems the way we ought to be able to if we are going to compete with the rest of the world.

Congressman Mineta mentioned sometime ago that testimony before your committee a couple of years ago revealed that Europe is spending $1.5 trillion in rebuilding and expanding their rail transportation system and their mass transportation programs in order to compete in the world market the next century. We are lagging woefully and we are going to get our pants beat because of it. So the capital assistance is very, very necessary.

The operating assistance makes the capital assistance work. So it really has to be both. We are imploring you to look at funding both at the level ISTEA envisioned. ISTEA was well thought out and the package was put together in such a way that it develops through a system. If one portion of that is underfunded for any period of time, then the system won't work. What we are hoping you will do is remedy the shortfall on the operating side, just about up to operating levels now on the capital side, and we need to bring the levels on the operating side.

Mr. GREGORY. I think it is important to realize there is like 75 million transit-dependent people in this country. That is quite a significant number.

Mr. BARCA. The second question I have is—you alluded to this in your testimony—in the area of senior citizens and disabled individuals that need this specialized transportation. I know in my home area when I go visit many senior centers, we hear just of the

great difficulty that they have in terms of trying to be able to get the services they need just to go grocery shopping or take care of the essentials in life to say nothing of sort of recreational opportunities they'd like to be able to take advantage of.

I wonder from your association's standpoint, how big of a problem is this across the country and what steps do you think we should be taking in order to fully address that? I know you alluded to this in your testimony but I wondered if it would be helpful at all to elaborate on this.

Mr. MARSICO. We have been under increasing pressure to provide additional services to people who, in prior years, were 100 percent subsidized under the Older Americans Act. What is going on in my community and other areas of my State is the Older Americans Act has been targeting harder to serve individuals and people who are coming out of institutions and what they like to call the frail elderly.

What that means is the people who are in centers, who have mobility already but need some transportation have created a greater demand for us and our system. As the public transportation providers, it is our obligation to provide that. I think in some information we can provide, you will find that what has gone out of the Title 3 program for transportation has not been made up anywhere and Section 18 programs, small Section 9 programs, and 16(b)(2) programs have been filling those gaps. That is another population that has required needed service.

Mr. DIRIDON. May I elaborate just slightly on that point? With the general population aging and with the serious reduction in local funding available, because local funding is more dependent on property taxes and sales taxes which have taken a serious hit during this period of recession, we have certainly seen more demand for mass transportation from the most needy segments. Yet in the face of that, we have had to increase our fares three times in the last 3 years in our county, and I know the smaller properties have had even more serious increases.

On top of that, we have had mandated without funding provided, requirements to comply with the Clean Air Act which requires retrofitting particulate traps and smog traps on all of our diesel buses at a cost of about, the last estimate was something in the neighborhood of $19,000 per vehicle minimum and then installation and maintenance, and then on top of that, the requirement to retrofit our systems to comply with the Americans with Disabilities Act. That comes out of operating assistance.

So not only is the Administration discussing a reduction in operating assistance but also even mandated compliance with Federal law that has taken a big bite out of what little we have left in terms of operating subsidy capacity. So we are in serious need down there in the vineyards right now.

Mr. BARCA. Thank you very much for your responses and for your excellent testimony.

Mr. RAHALL. Mr. Petri.

Mr. PETRI. I don't have any questions. However, this morning, Congressman Cooper made reference a few times to the fact that the State of Maine does not have a motorcycle education program. In fact, Congresswoman Snowe testified during her testimony that

Maine does in fact, have a rider education program and she wanted to be sure that the record was clear on that point.

Mr. RAHALL. The record will so reflect that clarification. The Chair thanks the gentleman from Wisconsin.

I'm going to call the next panel to come forward and then after introducing them, we are going to have a short recess of the subcommittee while we answer this roll call vote on the floor of the House.

The next panel, Dr. Mark Rosenberg, Centers for Disease Control and Prevention of Atlanta, Georgia; Mr. Ted Miller, National Public Services Research Institute, Landover, Maryland; and our third member is not able to be with us due to family emergency but it would have been Ms. Judy Soukup, Acting President, National Organization for Responsible Motorcycling.

I'm going to ask the two gentlemen to come forward and the subcommittee will stand in a short recess.

[Recess.]

Mr. RAHALL. The subcommittee will come to order.

Gentlemen, we have your prepared testimony. Please summarize; you may proceed.

TESTIMONY OF DR. MARK ROSENBERG, M.D., CENTERS FOR DISEASE CONTROL; AND TED MILLER, NATIONAL PUBLIC SERVICES RESEARCH INSTITUTE

Dr. ROSENBERG. Thank you, Mr. Chairman.

I appreciate the opportunity to testify before your subcommittee.

I am a scientist at the Centers for Disease Control and Prevention. I'm a psychiatrist and an internist and I see injured people. Injury is for Americans an incredibly important public health problem. More people from 1 to 34 years of age die from injury than from all diseases combined.

We use scientific principles and methods to test and evaluate what works to prevent injuries. I would say that you do have a tough job here. You do have to be careful when you pass legislation that affects behavior as one of the first panelists said, you do have to be careful and that is why we have paid so much attention to the science that underlies this and to the data that underlie it. We do want to provide for you the science which you can believe. We will stand behind our analyses and stand behind our data so that you can deal with what is established scientific fact.

In today's hearing, I will focus my remarks on motorcycles to make four points. One, motorcycle-related injuries are a very serious problem resulting in many deaths and serious injuries. Two, the highest cost and most serious consequences are associated with head injuries. Three, helmets work. Helmets prevent these injuries. Four, mandatory helmet use laws save lives.

Let me start with the public health impact of motorcycle-related injuries. Motorcycle-related injuries are not a minor problem, 2,394 deaths in 1992 or about one every 4 hours. Young people are primarily affected. Motorcyclists have four times the fatality rate of car occupants per registered vehicle and per mile traveled, a motorcyclist is 20 times more likely to die in a crash than is an automobile occupant.

Head injury is the leading cause of death in motorcycle crashes. They are involved in 53 percent of motorcycle-related deaths. For every death, there are at least 30 non-fatal injuries. A high proportion of these are head injuries and head injuries can be devastating.

Let me note as you try and sort your way through these statistics, look at the influence of helmets on head injuries, not arms, not chest injuries, and certainly not knee injuries. That is not where they have their impact. To sort your way through this, remember this takeoff and phrase, "it is the head, stupid." By stupid, I mean all of us because all of us lose focus but it is the head.

My next point is that helmets work. There are no arguments, there is no question, they protect the brain, plain and simple. The brain is the consistency of jello and it contains nerve fibers which tear as the substance of the brain is disturbed. If you shake the brain, you can disturb it, you can tear it. In a crash, whenever the head is hit, the inside substances shift and cause nerve injuries that are irreparable. The same forces may tear blood vessels, particularly on the surface of the brain, and these vessel injuries will produce clots or subdural hematomas which will continue to bleed and enlarge, increasing the pressure in the brain. This can crush the brain and cause further damage after the initial impact. A helmet, without question, protects the brain.

Motorcycle helmets are proven to be effective in reducing the likelihood and severity of head injuries in motorcycle crashes. Helmets are estimated by NHTSA to be 29 percent effective in reducing fatalities in motorcycle crashes and more importantly, it is estimated that of those motorcycle fatalities due to head injuries, two-thirds of them could be prevented by using helmets.

My next point looks at the costs associated with motorcycle injuries. As you will hear from Dr. Miller, motorcycle-related injuries are costly and can take a tremendous toll on the health care system. The failure to wear a helmet has a significant impact on health care costs and on public dollars. The costs for unhelmeted riders are two-thirds more than the cost for helmeted riders.

Finally, how do you get motorcyclists to wear helmets? We support NHTSA's comprehensive approach to increasing helmet use and reducing motorcycle injuries, including licensing, education and mandatory use laws. I'm a believer in education. I finished 25th grade, but licensing or education or testing alone does not get anywhere near the improvement in helmet use that mandatory laws produce. States that have laws that require all motorcyclists to wear helmets have lower death rates. It is clear. It is not a question.

Finally, in California, Dr. Jess Kraus has looked at a comparison in that State of pre- and post-law data. He showed that the proportion of motorcycle fatalities declined by 36 percent after the law was enacted. They estimated that in the first year alone, 92 lives were saved.

In conclusion, let me just mention the points again. Motorcyclists are at great risk of death and long-term disability. As you will hear from Dr. Miller, motorcycle injuries are expensive to treat and much of the burden is borne by the public.

Finally, we are going down the right road. My colleagues in the emergency rooms tell me that there has been a big impact. I think it is a disaster to diverge from that road. This is a road that your children and my children will travel down. You can see that they travel safely.

Thank you very much.

Mr. RAHALL. Dr. Miller?

Dr. MILLER. My testimony covers the cost of safety belt and motorcycle helmet nonuse. It also describes the insurance savings from injury prevention efforts that could be undertaken with highway safety grant funds.

Society generally restricts individual behavior that imposes unacceptable costs on others. Drunk driving and water pollution laws are examples.

My testimony defines injury costs very narrowly. It discusses public costs, what economists call external costs. These costs exclude injury costs paid directly by people who choose not to wear a safety device. They include only the cost to the rest of society, what you and I pay when someone else fails to buckle up or wear a helmet.

Let's start with safety belt nonuse. In 1997, all new passenger vehicles will have air bags. In an air bag equipped fleet, the public, not the people in the cars, but the rest of the public, could save $12 billion annually by getting everyone to wear a safety belt. During the next 15 years while vehicles without air bags remain on the streets, the annual savings will be much larger. Even with air bags, universal belt use would reduce medical spending more than $4 billion annually. Medical cost savings alone could pay the entire medical bill for child well care medical visits.

Picture two identical air bag equipped cars purchases by typical drivers. In one car, no one will ever wear a safety belt. In the other car, everyone always will travel belted. Each year, public injury costs will average $300 in the unbelted car. In the belted car, annual public cost is just $165. The public pays $135 in taxes and insurance for each car that drives without buckling up. How long must we pay those bills?

Some of the tax and insurance costs are paid by unbelted drivers. The Federal share, which is substantial, crosses State lines. That makes this a Federal matter. Despite this, every adult who uses their safety belt religiously currently is paying $110 a year to cover the nonusers. I'm sure you're wondering what this pile of money is. It's my $110 for 1994. Enough already. This is my money, I want to keep it. Responsible citizens shouldn't be forced to pay the bill for people who refuse to buckle up. Traveling unbelted ought to be an illegal act enforceable as a primary offense nationwide.

Motorcycles are dangerous vehicles. The public injury cost per mile ridden on a motorcycle in 1991 was ten times the public cost of riding unbelted in a car. Helmets unquestionably reduce motorcycle deaths and injuries. This link is more firmly established than the link between cigarettes and cancer. Annually, motorcycle helmet nonuse costs the public $375 million. That's $180 per unhelmeted motorcyclist. There are better ways to spend that

money. We could buy the 2 million unhelmeted motorcyclists a helmet, buy every new baby a child seat, buy every new bicycle rider a bicycle helmet, and have money left over.

From this economist's viewpoint, the external costs justify interfering with free choice. Unhelmeted cycling should be outlawed.

I'm a highway safety data guru. I want to give you some facts to replace some unsupported claims you heard earlier.

First, motorcycle helmet laws raise use by at least 30 to 40 percent and in some States, as much as 70 percent more than an education program. Second, the GAO was unable to identify any education programs that reduced fatalities on their own. Third, State motorcycle fatality rates per thousand population or per thousand motorcycles don't tell us what creates safety on a motorcycle. Miles ridden and urban versus rural riding as well as helmet use critically affect this rate.

Experience in the States with new helmet laws clearly show helmet laws stop fatalities that education failed to stop. For example, in Maryland, we know that we have reduced fatalities 30 percent this year. When helmet laws took effect in California and Washington, public costs per motorcycle fell almost 30 percent. Helmet laws are saving California citizens $210 million annually and Washington citizens $35 million annually.

Fourth, in the late 1970s, many States repealed motorcycle helmet laws. Deaths consistently rose after repeal. In Wisconsin, deaths rose 60 percent from 70 to 110 a year. In Iowa, GAO found fatalities were 30 percent lower with the law in place than without one. In Texas, repeal boosted fatalities and reinstatement dropped them by 80 percent.

In my written testimony, you will find that I give a number of examples of things we can do with the money that we save from ISTEA, things like buying bicycle helmets for children and buying child seats that will return more in just medical costs than the amount that we spent on those items.

We're not going to make up the total cost of what is coming out of our pockets when those laws are not in place. We are just going to put a dent in it. So I don't think half for half is a good deal. I think the whole thing is needed to even put a dent into one or the other.

Thank you.

Mr. RAHALL. Gentlemen, you answered my questions.

Chairman Mineta, I understand, had some other questions he wanted to ask. Without objection, those will be submitted to you as part of the record and you will respond for the record, please.

Thank you very much.

The next panel, Mr. James Ahern, President, Ahern & Associates, South Charleston, West Virginia, on behalf of the American Road and Transportation Builders Association, ARTBA; Mr. Roy Beckner, S.W. Rodgers Co., Inc. on behalf of the Associated Builders and Contractors, Inc.; Mr. Bill B. Armstrong, Jr., President, Armstrong Construction Company, Inc., Roswell, New Mexico on behalf of the Associated General Contractors of America; and Mr. Arthur P. Berg, Chief, Opinions and Appeals Division, Port Authority of New York and New Jersey, New York, New York on behalf of the International Bridge, Tunnel and Turnpike Association.

Gentlemen, we welcome you to the subcommittee. We have your prepared testimony. Please summarize it. We will start with Mr. Ahern. Welcome, Jim, to the subcommittee. It's good to see you again.

TESTIMONY OF JAMES AHERN, PRESIDENT, AHERN & ASSOCIATES, ON BEHALF OF THE AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION; ROY BECKNER, S.W. RODGERS CO., INC., ON BEHALF OF ASSOCIATED BUILDERS AND CONTRACTORS, INC.; BILL B. ARMSTRONG, JR., PRESIDENT, ARMSTRONG CONSTRUCTION CO., INC., ON BEHALF OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA; AND AUTHUR P. BERG, CHIEF, OPINIONS AND APPEALS DIVISION, PORT AUTHORITY OF NEW YORK AND NEW JERSEY, ON BEHALF OF INTERNATIONAL BRIDGE, TUNNEL & TURNPIKE ASSOCIATION

Mr. AHERN. Mr. Chairman, members of the subcommittee, I am Jim Ahern, President of Ahern & Associates, an employee-owned highway contracting firm located in South Charleston, West Virginia, and a member of the Board of Directors of The American Road and Transportation Builders Association.

I am particularly pleased to appear before a body chaired by a fellow West Virginian. Mr. Rahall, I bring with me this afternoon the thanks and appreciation of the construction industry and the people of West Virginia for all you have done to help our State develop the transportation system we need. Together with Representative Wise, you give West Virginia an effective one-two punch on this committee which programs are so important to us in building a strong economy in West Virginia.

I will summarize several important points and submit my full statement for the record.

It is impossible to overstate the importance of the National Highway System to the United States. Members of this committee, Secretary Peña, and others have stated on many occasions that it is the backbone of the national transportation network. Although it comprises only 4 percent of our country's highway mileage, the network carries a 40 percent share of the commerce and personal travel.

In recent months, the national highway system has taken on an additional importance with the adoption of the North American Free Trade Agreement. The national highway system is essential in the future strength of our economy and therefore has rightly been designated as the major focus of Federal highway investments. For that reason, Congress must assume that the National Highway System is able to fulfill the role which you have assigned to it.

We are pleased to note that many others share this view. Just this week, for example, the U.S. Chamber of Commerce Board of Directors issued a policy statement calling for the timely approval of an NHS designation bill. Highways will remain the dominant mode of commerce and movement for the American people. This does not mean that we should ignore other forms of transportation, each of which has a role to play in a diversified intermodal system. The facts are that highways today carry approximately 90 percent

of all commuting traffic, 78 percent of all freight by value travels by truck. Even without changes in these percentages, expectant growth in traffic volume requires constant attention to the ability of the Nation's highways to perform their tasks.

For 38 years, we have concentrated on building the interstate highway system. Construction of the interstate is now virtually complete. The enactment of the Intermodal Surface Transportation Efficiency Act in 1991 signaled the transition to the post, interstate era. That legislation moved in bold new directions to fashion a transportation program that will carry America well into the 21st century.

ISTEA, as it is called, provides greater flexibility in meeting transportation needs and it extends assistance into many areas never before eligible for Federal funding. Additionally, ISTEA called for the creation of the National Highway System to be America's basic mobility network. For that reason, primary attention must be directed to the National Highway System.

As we focus on the National Highway System, it is important to remember what the system is and what the system is not. The National Highway System is not intended to be a larger replication of the interstate system, nor is it likely to involve significant new construction. It has been stated from the beginning that only about 2 percent of the 159,000 miles proposed for the National Highway System would involve new construction, presumably to fill in the gaps and improve alignments. The remainder of the recommended system will consist of existing roads. The emphasis will be on maintaining and improving these routes.

Mr. Chairman, ARTBA believes that the legislation to designate the National Highway System should be enacted this year. There is no logical reason to wait another 18 months as allowed under law to do what can be done now. The importance of the National Highway System is such, however, that Congress should not be content with just approving the routes. There are other steps which should be taken to strengthen the commitment of ISTEA to make this new network our road to the future.

Therefore, ARTBA encourages that the committee also include in the bill the following additional provisions. One, that any construction or reconstruction of the National Highway System be carried out under specifications that will result in a roadway life span of at least 40 years. Two, eliminate the authority in ISTEA to transfer funds designated for the National Highway System to other programs. Three, transfer revenues from the 4.3 cents per gallon of the Federal gas tax enacted last year for deficit reduction to the Highway Trust Fund to eliminate the approximately $15 billion annual shortfall in highway funding.

There are several other issues ARTBA believes should be addressed in the National Highway System legislation and they are discussed in detail in the statement provided in the record. In addition, there are other matters related to transportation that should receive attention. We request that you clarify and restate the intent of Congress with respect to conforming to Federal transportation and environmental laws and particularly with respect to the Clean Air Act. Some of the uses of highway construction to achieve

other goals through the use of the sanctions could also be eliminated. Finally, reject efforts to include provisions codifying regulations concerning wetlands.

You might ask yourself why a dirt-moving cowboy from West Virginia took his best suit out of the closet today and came up here to attempt to provide meaningful testimony to you and your committee. It's a desire to continue a particular way of life.

I look forward to early morning drives up Interstate 79 from Charleston toward Pittsburgh when the sun will pop up above the eastern ridge and I can take pride and have a good feeling knowing that our firm took a part in building that road.

It is also the opportunity to go to Charleston or Columbus or Harrisburg or Richmond to bid on projects that the affiliated departments of transportation let. On occasion, we might be low bidder on one of those jobs and sign a contract. What that ultimately does is generate payroll checks to a broad base of employees on Friday afternoons. We make FICA and other Government tax payments; we provide fringe benefit contributions to AFL–CIO, United Steelworkers, and United Mine Worker benefit programs, and it enables us to make monthly payments on our office and shop and reduce our long-term debt on the heavy equipment that we've had to acquire to perform this work.

Hopefully, just before each January 1st, we can give our employees a Christmas bonus that they use to save up for making a down payment on a house or to put their kids through college paying their college tuition.

So from a selfish standpoint, without this legislation, I'm concerned. I'm anxious to be here with the other members of ARTBA to guarantee the finest quality in construction, to increase the quality of life for West Virginians and other people around the United States, to decrease the transportation costs of those parts of American industry that use the system, and to also increase America's global ability to compete.

If you see your way clear to get this legislation enacted on a timely basis, you will ensure for about 100 West Virginia craftsmen the opportunity to continue on with this way of life and enjoy all the facilities we have in our wonderful State.

I thank you for the opportunity to testify here and I'd be happy to answer any questions at the appropriate time.

Mr. RAHALL. Thank you, Jim.

Mr. Beckner?

Mr. BECKNER. Good afternoon, Mr. Chairman.

My name is Roy Beckner and I'm associated with the S.W. Rodgers Company in Gainesville, Virginia. We are a site development, highway, road construction contractor.

On behalf of the Associated Builders and Contractors, I appreciate this opportunity to comment on the designation of the National Highway System. Associated Builders and Contractors represents over 16,000 member firms and contractors, subcontractors, materials suppliers, and related construction industry firms.

Our diverse membership is bound by a shared commitment to the merit shop philosophy of awarding construction contracts to the lowest, responsible bidder, regardless of labor affiliation through

open and competitive bidding. With 75 percent of construction done today by open shop contractors, ABC is proud to be their voice.

The ABC appreciates the opportunity to appear before the subcommittee to comment on the designation of the National Highway System, a network that paves the way for an integrated national transportation system. As legislation designating the NHS is finalized, ABC urges the committee to produce a bill that embodies the original intent of the National Highway System as authorized under ISTEA.

Many have suggested that consideration of the NHS is an opportunity to place specific constraints on the program as well as to incorporate major policy decisions regarding current transportation programs. ABC believes the National Highway System has the greatest chance of being realized if it is brought before Congress as outlined in ISTEA.

ABC applauds the Federal Highway Administration for submitting to Congress last December the map of the proposed NHS routes. We are confident that the NHS will be approved by Congress in a timely manner in advance of the 1995 deadline. Adequate transportation is essential for an active, growing economy. ABC is certain that the designation and approval of the NHS will have a positive impact on countless industries by improving urban transportation, rural transportation and ultimately better linking the two.

While it is apparent that the NHS will have a direct impact on the transport of people and goods, ABC believes that the anticipated increase in economic growth in a given community will translate into an increase in building and general construction activities.

Our Nation's infrastructure, a vital component of our future economic growth and stability, continues to suffer from a serious lack of investment. This investment gap imposes rising costs on our Nation's productivity, inhibiting our ability to compete in an increasingly global economy and threatening our basic quality of life. Since the passage of ISTEA, appropriations have failed to meet authorizations by some $4 billion. For the National Highway System to be developed and implemented as authorized under ISTEA, full funding of the Act must be a priority.

ABC is pleased that the 1995 Department of Transportation budget allocates $20.3 billion for the Federal Highway Administration to fully fund the program by fiscal year 1995. While the Administration proposes full funding, the source of those funds, the Highway Trust Fund, has been greatly affected by new fuel taxes which are earmarked for deficit reduction purposes. As a result of the Omnibus Budget Reconciliation Act of 1993, an additional 4.3 cents per gallon of Federal fuel taxes goes for deficit reduction. When added to the 2.5 cent gas tax imposed in the 1990 budget agreement, a total of 6.8 cents per gallon of the Federal gas tax now goes to the General Revenue Fund.

ABC has long advocated that the revenues raised by user fees and collected in transportation trust funds should be allocated and spent solely for their intended purposes.

In planning for a continued highway program, serious consideration must be given to repeal of the ethanol exemption from the motor fuels tax. We believe that continuation of the current gasohol

exemption, which costs the Highway Trust Fund some $500 million each year with an additional $200 million diverted from State and local transportation needs, undermines efforts to invest in our Nation's infrastructure. Additionally, EPA's proposal of a 30 percent ethanol mandate for reformulated gasoline will result in yet another drain on the Highway Trust Fund of some $340 million annually.

As exemplified in the development of the NHS, involving transportation planning officials, transportation providers, and transportation consumers in the planning process, facilitates coordinated planning and continuity necessary to meet our transportation needs of the future. It is imperative that the State authority regarding use of NHS funds be maintained.

While the most effective planning has involved several groups and metropolitan planning organizations, ABC believes that the next decisions, implementation and allocation of funds for NHS must lie with the States. As the NHS is under consideration, ABC urges the committee and Congress to reject any attempts to attach specific requirements to NHS funding. ABC is opposed to the idea of developing additional requirements mandating State use of NHS funds for urban projects designating separate maintenance funds or limiting new construction or capacity.

ABC believes that the process undertaken in developing the NHS routes in each State and locality incorporates the areas current and future transportation needs. Under current statute, States have the ability to determine use of funds for their transportation needs. The flexibility of ISTEA would be broken by proposing these types of specific allocation requirements.

The ABC is opposed to any attempt to amend current regulations to allow State transportation or highway departments to incorporate warranty or guarantee provisions into Federal aid construction projects. ABC believes that warranty and guarantee provisions, which are prohibited under current law, are unnecessary and potentially damaging to a presently successful contracting process.

We strongly oppose efforts to hold contractors responsible for the performance of materials and structures when a host of outside factors contributes to product life such as project design and post construction project use. Quality construction work is assured through the current contracting process. That is, contractors are not fully paid until they have met all the requirements and the specifications in their contracts which are monitored through regular State inspection.

With the funding constraints that we have already experienced under ISTEA and the anticipation of less than full funding for the life of the Act, ABC proposes——

Mr. RAHALL. I'm going to have to ask you to wrap up, Mr. Beckner, please.

Mr. Chairman, I'm sorry for the length. On behalf of the Associated Builders and Contractors, I again want to thank you, Chairman Rahall, and the subcommittee for your time and your kind attention.

Mr. RAHALL. Thank you.

Mr. Armstrong?

Mr. ARMSTRONG. Good afternoon, Mr. Chairman and members of the subcommittee.

My name is Bill Armstrong, Jr. I am a highway contractor from Roswell, New Mexico and this year's Chairman of the Highway Division of the Associated General Contractors of America.

AGC commends you, Mr. Chairman, for holding these important hearings on legislation to enact the National Highway System. Adoption of the NHS will bring many benefits, including improved traffic safety conditions, upgraded road services, economic growth, reduced traffic congestion, increased tourism and expanded interstate and international commerce.

The National Highway System will target investment to enhance the Nation's economy, improve transportation safety and strengthen international trade. NHS funding would also be aimed at bringing some arterial routes up to interstate standards.

Another most important feature of the NHS is that it will enhance system connectivity with ports, airports, railroad stations, and international border crossings, and will ensure that priority roads continue across the State borders.

Failure to enact the NHS by the September 30, 1995 deadline would be a major setback for the Nation's economy given the close relationship between an efficient transportation system and economic growth. Clearly, the first priority is to establish the NHS. A very important second step is to adequately fund the system to meet the future transportation needs by improving highway and bridge conditions.

I would now like to briefly discuss some issues of importance to AGC which Congress may address prior to the reauthorization of ISTEA.

AGC urges Congress to amend Section 1038 to allow flexibility in the minimum utilization requirements of crumb rubber in asphalt pavements. AGC believes the minimum utilization requirements should be expanded to allow uses other than in hot mix asphalt pavement. If disposal of scrap tires is a problem in America, then why should Congress mandate its use solely in hot mix asphalt pavement if the highway industry can absorb its use in any other areas at a much lesser cost?

A second concern is the impact on transportation funding of the Clean Air Act transportation conformity rule. AGC urges this subcommittee to closely monitor the economic impact of conformity rule and take the necessary action to protect the balance Congress entrusted the agencies to achieve.

AGC is also concerned with the shortfall of investment to maintain and improve the condition of the Nation's highways and bridges. Clearly, there are not enough available resources to meet the needs of all the eligible programs under ISTEA. Not only has the list of nonhighway eligible projects been expanded under ISTEA, the revenue source that supports the Highway Trust Fund is being eroded by diverting gas tax funds to deficit reduction and the increased use of alternate fuels on which highway user fees are not fully assessed and should be.

AGC is committed to continuous quality improvement and it is an active participant with Federal and State highway officials and other industry representatives in joint efforts such as the National

Quality Initiative, partnering and value engineering. AGC has had several positive meetings with the sponsor of the guaranty-warranty provision to explain the adverse impact it would have on the industry. Quality begins up front at the start of the process with funding and design, not with the last link in the chain.

This is the first occasion in several years in which AGC is commenting on the subject of disadvantaged business enterprise with optimism for the future of this well-intended program. A top priority task force of AGC, in concert with other minority organizations, are finding ways by which this subject can be positively addressed through combinations of outreach, partnering and new thinking in which all parties involved can work together in the hope of going forward together.

I am impressed that the goals of minority contractors and AGC members have far more in common and outweigh the areas in which differences exist and goodwill can prevail, thus making the DBE Program work as intended.

In conclusion, Mr. Chairman, the enactment of the NHS is one of the most critical actions this Congress must take to ensure a sound transportation system and enhance economic prosperity. AGC applauds the subcommittee's early action in holding these hearings and looks forward to working with you in support of this critical legislation.

Thank you.

Mr. RAHALL. Mr. Berg?

Mr. BERG. Mr. Chairman and members of the subcommittee, my name is Arthur Berg and I appear before you today as Chairman of the Law Committee of the International Bridge, Tunnel and Turnpike Association, and as a member of the Association's Government Affairs Task Force.

IBTTA is the only trade association representing the worldwide toll industry. Our members consist of toll authorities in 24 countries on six continents. Among these are more than 50 U.S. toll agencies whose facilities carry more than 3.5 billion vehicles a year.

We appreciate this opportunity to testify before you today on the need for approval of the National Highway System and we commend you, Mr. Chairman, for your leadership in beginning this process in such a timely manner.

IBTTA strongly supports the speedy adoption of the National Highway System. In our view, the NHS is at the heart of a rational, national transportation system. Without the baseline provided by a clearly defined system and dedicated funding for the core surface transportation network, it would be very difficult to develop the coordinated, multimodal approaches needed to service our Nation's travelers.

Many of IBTTA's members operate transit systems as well as roads, bridges and tunnels, and in the case of the Port Authority of New York and New Jersey, by whom I am employed, in addition to operating transit and toll facilities, we also operate marine terminals, the busiest bus terminal in the world, and the three major airports serving the metropolitan New York and northern New Jersey area. Therefore, both IBTTA and the Port Authority strongly support multimodal approaches to meet these transportation needs.

In the legislation approving the NHS, we would urge that some discretionary authority be granted to the Department of Transportation to include still to be developed facilities and needed connectors on the NHS as appropriate. In the future, there will undoubtedly be instances in which additional facilities, unforseen or considered unlikely during the development of the NHS system, should be incorporated into the system. For example, the Dulles Greenway, a privately-developed toll road now under construction in Virginia, might warrant inclusion in the NHS at some point in the future.

I would like to point out that the development of toll roads continues at a very strong pace. A recent IBTTA report identifies proposals for nearly 2,000 miles of road and bridge facilities in 18 States and Puerto Rico at a projected cost in excess of $27 billion. Toll projects such as these greatly reduce demand for public financing. Without toll financing, many of these needed transportation projects could be constructed only if additional State or Federal taxes were imposed.

On past occasions, we have had the pleasure of updating this subcommittee on the use of highway technology applications in the toll industry, particularly electronic toll and traffic management systems. Therefore, we have included today in our written submission to the subcommittee a fact sheet which details recent trends in the application of intelligent vehicle highway systems at toll facilities.

Since toll agencies have a very strong incentive to satisfy their customers as well as bondholders, they are often on the forefront of adopting new technologies and practices which improve traffic flow and safety as well as reduced operating and development costs.

We have submitted a more detailed statement for the record and with that, I will conclude and be happy to answer any questions at the appropriate time.

Thank you.

Mr. RAHALL. Thank you, gentlemen, for your testimony.

The Chair recognizes the full committee Chair, Mr. Mineta.

The CHAIR. Let me thank the panel for being before us. This is, without a doubt, a cross section of the movers and shakers in terms of the construction industry and the building industry as it relates to the infrastructure that is so important to all of us.

As has already been mentioned by some of you, I'd like to just throw this out as a general question for the panel, as you know, we tried to build flexibility into ISTEA in terms of the use of Federal aid transportation funds. As a result, over $1 million of Federal aid highway monies have been apportioned for transit purposes. I'm wondering if you have concerns about that portion of ISTEA that allows the States to have this flexibility to make transportation decisions to meet their particular needs, or should there be additional limitations imposed on the Federal aid to highway use funds?

Mr. Berg. On behalf of IBTTA, I would say that since our members often operate different modes of transportation, we support the flexibility found in ISTEA.

The CHAIR. Any other thoughts by the others?

Mr. ARMSTRONG. The problem, Congressman Mineta, is that there is not sufficient funds available under ISTEA without full funding to upgrade our highways to the system that was intended under ISTEA. Almost all of the other flexibility provisions under ISTEA depend upon the highway system and until Congress enacts full funding provisions of ISTEA, I think we are always going to say that we have problems with the flexibility portion, until such time as the highways of America are brought up to the proper standards.

The CHAIR. I'm not sure even if we had full funding, unfortunately, of ISTEA, when I think about the fact that Japan is investing something like $3.2 trillion in the next 10 years in their transportation infrastructure; Germany is something like $2.1 trillion. When I think about what are we going to be able to do in a 10-year period, if we get anywhere near, say, even $400 billion maybe, I think I'd be really lucky. I just don't see that happening. So here we are when you think about anything we buy, eat or consume, 27 percent of the cost of that item is transportation logistics. We are not going to be competitive in the international marketplace if we don't put some more money into the pot.

Mr. ARMSTRONG. Furthermore, sir, 90 percent of that travels on highways, the goods and services we receive travels on highways.

The CHAIR. Thank you very much for the panel being before us.

Mr. Chairman, thank you.

Mr. RAHALL. Let me ask the panel one question. Based upon the 1993 report entitled, "The Status of the Nation's Highways, Bridges and Transit Conditions and Performances," submitted by the Secretary of Transportation, expenditures to maintain our highways and our bridges in their current condition, just in their current condition, is underfunded by some $17 billion annually.

Can you recommend to the committee any cost effective options that should be considered for getting the greatest leverage with the limited Federal aid funds to preserve and maintain the National Highway System? I'm sure you are aware of previous efforts by Representative Beilenson and his testimony before our subcommittee. I'm not sure that I would expect you to endorse that particular provision, but can you give us some options for getting the greatest leverage out of Federal dollars?

Mr. AHERN. Sir, I would like to comment on one part. It maybe isn't a lion's share effort here but representing a reasonably small company, we find that more and more of our overhead dollars are going into administratively meeting the needs of new OSHA regulations, new payroll reporting regulations. We certainly advocate the use of safe practices in the field but when we have to add two people to a small office staff to just keep up with the reporting methods that are required by potential legislation, then we are apprehensive that the dollars are not being spent in cubic yards of concrete and linear feet of pipe. They are being spent in meeting administrative requirements that don't really improve the road bed out there on the interstate system or the National Highway System.

Mr. AMSTRONG. One area which we can significantly impact the issue of quality is through partnering which is being done with many State highway departments and through value engineering

which is a very excellent tool for reducing the cost and improving the quality of our highway systems. Through cooperative efforts between the agencies, we can have meaningful quality and that is one area that would significantly reduce our costs for both the agencies and for contractors.

Mr. RAHALL. Could you elaborate just a bit on partnering?

Mr. ARMSTRONG. Partnering is a program which is basically an informal program but requires meetings between agency heads—I'm talking about the highway department heads and the supervisors on the projects. These are done up front and during the course of the project with the intention being that it provides maximum cooperation while achieving a highway with the least cost. It avoids litigation, the lawyering process, and it achieves what both sides want to do which is to achieve the best highway for the least amount of money.

Mr. RAHALL. It is a means of streamlining the process and perhaps eliminating a lot of the administrative work?

Mr. ARMSTRONG. That is correct and foreseeing the problems before they arise. It also eliminates suspicion. The old saying the highway departments say, you bid it, you bought it, and we say, you did it, you pay for it.

Mr. BECKNER. Would you object to a personal observation rather than one on behalf of the group that I represent?

Mr. RAHALL. Fine.

Mr. BECKNER. The company that I am associated with is involved in the beginning stages of recycling concrete and as a base material for roadbuilding, we think that through the evolution of this recycling effort here in Virginia and throughout the Nation to some extent, we maybe able to save cost in the construction of roads by recycling that product which we all know needs to be repaired from time to time—sidewalks, curb and gutter and that sort of thing.

In addition to that, I would suggest very respectfully that to pay for the maintenance of the roads we build today, we need to do a lot more on the State and local level toward the economic development of our areas. I know that we all are trying to do that but economic development will help quite frankly pay for not only construction of the roadways but the maintenance of those roads as well.

Mr. BERG. I would say there is always going to be a tremendous shortfall of revenues and that the Congress should encourage, to the extent feasible, toll facilities which bring new money into the system and provide an alternate to public financing. I think some of the provisions in ISTEA have helped encourage toll facilities and the revolving loan fund would be one of these items. I would think that legislation in the future which more integrated the interstate national highway system and the toll facilities would help put new money into the system and help relieve the revenue shortfall.

Mr. AHERN. One other consideration that is receiving a lot of attention here in the recent past is a design life cycle of 40 years as opposed to the more popular 20-year cycle. That would have a larger up front cost but percentagewise, the long-term cost of the highways are assumed to be of a lower magnitude.

Currently, I know of projects in New York and Michigan that are somewhat a demonstration project by those departments of transportation where they actually bid alternate packages which considered different designs to accommodate the 40-year life cycle. For a relatively small incremental cost at the initial construction phase, ideally if the design is good, it will get a much extended life.

That doesn't help our immediate short-term concerns or over the long haul, the success of the intermodal system that could be a plus.

Mr. RAHALL. Thank you, gentlemen.

The gentleman from Wisconsin, Mr. Petri?

Mr. PETRI. We do have to run but I just wanted to ask if any of you would care to comment more directly specifically on Mr. Beilenson's proposal for allowing states to require a warranty or guarantee by contractors of their work and the practicality of doing that in this country as he has testified is being done in various European countries? Any comments on that approach at all?

Mr. Armstrong. Did you ask me?

Mr. PETRI. I asked you or one of the others.

Mr. ARMSTRONG. We feel that quality begins at the start of the process and the contractor is on the tail end of the chain and is guided by many things which he cannot control— design, changing traffic conditions, weather, a number of factors which affect the quality and cannot be guaranteed by the contractor.

If you were to impose a guaranty-warrantee provision on the industry, it is going to have a significant impact upon the bond ability of most small medium size contractors. In fact, it will eliminate that segment of the industry.

We contend that the very best quality of highways is built right here in America. The problem in comparing it to other nations of the world is what do we spend upon those in dollars per mile. It is our concern that the proper quality begins with the design. We have no control, as contractors over the design of a road.

The CHAIR. Mr. Armstrong, very quickly on that, what about the inspection services being provided by the States or localities in terms of the contracts all of you are working on? Sometimes even if you're given a 20-year design life on a road, they are falling apart in 10 to 12 years. Is that design? Are we getting a 10 sack concrete job or are we getting a 7 sack concrete job? Is it the 80,000 trucks, is it the fact that it was designed for x-number of VMTs but now we've got 2x VMT on that road? What about the inspection services piece of it?

Mr. ARMSTRONG. I think the quality of inspection with the highway departments I've dealt with is excellent. I find that if the specifications are applied uniformly among all contractors, and I believe they are, that you get the system of road that you ask for, that you bid on.

There are obviously some failures that may occur because of faulty contractors, but we drive across America in a uniform strip never identifying that this road was built by Contractor A and the next one by Contractor B. We have a very good interstate system.

The CHAIR. I have a specific request that I am going to be putting together to the Federal Highway Administration because we

have 395, the perimeter to the Capitol here, which was just completed about a year ago and I drive it every day. It is starting to deteriorate already. It just seems to me that something is wrong.

I recognize we have to put salt on the roads but I just really wonder whether or not we ought to be pursuing some other avenue.

Mr. ARMSTRONG. If something like that is occurring, the industry is not proud of that and I do not know the answer to the question.

The CHAIR. I know my Ford Escort can't stand it either.

Mr. RAHALL. Thank you, gentlemen, for your testimony.

The subcommittee will take a short recess to answer this roll call on the floor and asks the next panel to come forward, please.

[Recess.]

Mr. RAHALL. The subcommittee will resume its sitting.

We will now hear from a panel consisting of: Thomas J. Donohue, President and CEO, The American Trucking Associations, Washington, D.C.; Mr. Lester P. Lamm, President, The Highway Users Federation, Washington, D.C.; and Mr. Andrew H. Card; President and CEO, American Automobile Manufacturers Association, Washington, D.C.

Gentlemen, we welcome you to the subcommittee and we will be glad to hear your testimony.

Tom?

TESTIMONY OF THOMAS J. DONOHUE, PRESIDENT AND CEO, THE AMERICAN TRUCKING ASSOCIATIONS; LESTER P. LAMM, PRESIDENT, THE HIGHWAY USERS FEDERATION; AND ANDREW H. CARD, PRESIDENT AND CEO, AMERICAN AUTOMOBILE MANUFACTURERS ASSOCIATION

Mr. DONOHUE. We are pleased to be here. I am pleased to be with my distinguished colleagues who join me on a major coalition of people who don't always get together on every issue to advance the National Highway System.

As you know, the ATA Federation includes 40,000 motor carriers and an affiliated organization in every State in the Union. The trucking industry is the Nation's largest transportation mode, employing 7.8 million people and representing 5 percent of the Gross National Product with over $300 billion in revenues.

We want to thank you and the members of the subcommittee for holding these hearings on the National Highway System. We especially want to thank you for your understanding of the importance of the system and for your recent participation in our national satellite television broadcast on the subject.

Our overview on the subject is very quick and very to the point. The establishment of a National Highway System—an upgrading of the world's best highway system—will mean more jobs for Americans, economic growth for our country and safer highways.

The economic importance of the National Highway System is documented in a recent study done by the Apogee Research Organization. The report includes case studies showing how good roads create more jobs. The study includes cases of five major corporations who employ 350,000 with combined revenues of more than $45 billion. We have provided a copy to each member of the subcommittee and we urge you to review it.

Another example of the importance of highways and the use of trucks was demonstrated to us in California recently as a result of the earthquake. Without those trucks and without those highways, life and business became very difficult.

Let me say a word of why this National Highway System is important to America. Let me first stress that the new building that would be included in it would only be 2 percent of the 159,000 miles which will involve the highway system. We emphasize in this system maintenance, preservation and the improvement of the 159,000 miles of road.

This National Highway System is a smart investment. Each billion dollars invested in our system and our infrastructure will create 24,000 jobs and generate $2.43 billion in goods and services. This comes from the Congressional Research Service.

On the intermodal front, the highway system will connect our Nation's ports, airports, rail terminals and highways and will expand our markets for U.S. products, increase travel and tourism and connect rural America with U.S. marketplaces. The system will also serve all major border crossings and stimulate free trade.

If there was one point I could make to get everyone to focus on, the recent study which we had done shows that if we get 2.8 economic growth in this country, and the railroads double their intermodal freight, we will need by the end of the century to carry 30 percent more freight, travel 31 percent more miles, and put almost 10 percent more trucks on the highway. Although this new system we discussed will comprise only 4 percent of our existing highways, it will carry 40 percent of all traffic and 75 percent of all commercial traffic. We must do it.

This highway system will improve safety by relieving congestion and creating greater lane widths and generally improving the function of the highway. National Highway System upgrades and improvements are expected to save between 1400 and 3600 lives per year. It will help the environment by eliminating congestion and moving the vehicles on at a sensible rate.

Let me summarize by saying by law, the system must be passed by Congress no later than September 1995. Otherwise, the maintenance funds will not be released. We urge you and the members of the Senate as well to move quickly on this matter.

In sum, the National Highway System is not about trucking, it is about our communities and the Nation, about our mobility, about moving goods and people in the most efficient manner possible, by investing scarce resources wisely, strategically and for the future, creating jobs. Whether we want economic growth or not is the question. In short, the National Highway System is the highway system which will take America into the 21st century.

I thank you for the opportunity to be here and I encourage the subcommittee to put all its weight behind this bill.

Mr. RAHALL. Thank you, Tom.

Lester?

Mr. LAMM. Thank you, Mr. Chairman.

I am happy to be here representing The Highway Users Federation, the Nation's most diversified private sector organization devoted to improving safety and efficiency of the highway transportation system. I should mention that both my fellow panelists, plus

seven other witnesses that you will and have heard from today, are also members of the Federation.

We greatly appreciate the subcommittee's leadership in holding these early hearings and I hope the progress will continue until we have a good and timely national highway legislation. It is our members' top priority and I'd like to spend a few minutes to tell you why.

The Federal Government's role in highway assistance obviously dates back to the Interstate Commerce Clause in the Constitution which assigned to the national government the responsibility to facilitate the free flow of commerce across State borders. How the Federal Government has filled that role has changed very much over the years as America's needs have evolved. Now more than 200 years later as we stand on the threshold of a new century, we have to look anew at how the Federal Government will continue to fill that role. What worked in 1893, the dawn of the motor vehicle age through the Office of Road Inquiry, Federal Highway Administration's predecessor agency, is obviously no longer sufficient today.

We have to seek a vision of the future, founded on the goals of continued economic growth, enhanced international competitiveness, improved air quality and greater individual freedom. We must make strategic decisions today that will assure us and our children a better tomorrow. There are some very tough choices that we have to make. Our decisions will be made within the context of increasing demands on our highway system and years of underinvestment. We need to choose wisely. Based on the facts and sound reasoning, we need to deploy our limited tax dollars in the most effective and strategic manner possible.

More than 50 years ago, the strategic needs of the American Interstate Highway System were based, to a great extent on the national security and on defense. While, as you heard earlier today, defense transportation is still a significant concern, our strategic competitive needs are largely economic. That is why we need the National Highway System. Simply, it will put Federal dollars to work where they will do the most good. The NHS will help American business move faster, make its good cheaper, it will connect our businesses to more intermodal facilities and expand the range of personal mobility for work, home and recreation trips. We will boost economic competitiveness of American business, cut their costs and raise product quality through sure, just in time delivery.

In fact, my full testimony presents six real life examples from some of our members. Their experiences speak louder than any dry statistics about the value of the National Highway System.

Despite this, you are going to hear—in fact, you already have heard—from people who argue that NHS should either be substantially modified or killed by Congress' failure to act. I'd like to state the Federation's position as succinctly as possible.

In ISTEA, 27 months ago, Congress established an effective balance between strategic or national transportation priorities on the one hand and local priorities on the other. Counting interstate maintenance, NHS and assuming strategic value in roughly half of the bridge funds, in 1996, as an example, you're going to provide about $9 billion for strategic highway and bridge investments. The remaining $11 billion of highway program funds and all of the $5

billion in transit funds will be aimed at or readily available for use on purely State and local transportation priorities. No Federal priority-setting, little Federal oversight, maximum flexibility and by definition, little or no concern for long distance transportation needs.

People among us, including myself, would like to have seen the Federal Aid Highway Program in ISTEA 1991 more heavily weighted towards strategic highway improvements. Others today urged you to put even more resources into local priorities. The bottom line is ISTEA established the balance which can only be preserved by the strategic focus of a National Highway System.

Frankly, Mr. Chairman, we still support that flexibility today. In order to preserve the balance, the National Highway System to us must contain three essential components. First, it must provide strategic service across national, State and local borders; second, be funded at a minimum level of today's $6.5 million and third, allow for added highway capacity improvements in order to accommodate future economic growth.

Proposals that delete National Highway System routes to substitute non-highway facilities or cut National Highway System funding or suballocate funds for local priorities and to eliminate artificially any new or improved highway construction are the factors to which we would really object. We urge that you reject these proposals. The National Highway System has to be a national system.

I would emphasize the issues you are debating are not arcane, inside the Beltway debates without real world impact. If the critical provisions that I've mentioned are not in the NHS legislation, you are not going to be approving the strategic NHS that your committee authorized in the ISTEA. You are just going to have one more STP-type program without real national strategic focus.

Thank you again, Mr. Chairman. I'd be happy to answer any questions.

Mr. RAHALL. Thank you, Lester.

Andy?

Mr. CARD. My name is Andy Card and I am pleased to be here today. This is my first appearance in this room since I shared ideas about a national railroad strike, the Department of Transportation budget or the value of the Intermodal Transportation Efficiency Act. Right now, I am here representing the American Automobile Manufacturers Association. That is the trade association representing Chrysler, Ford and General Motors.

We have asked to testify today to express our appreciation for the prompt scheduling of these hearings and to urge the subcommittee and the whole Congress to act on the NHS legislation as quickly as possible. However, we all know that the legislative process is a protracted one, or at least it can be at times, and the congressional agenda this year is again crowded with many important issues. They compete for attention and resolution.

Nonetheless, there are few issues that are as intimately connected to the essential economic health and welfare of our Nation than that which is before you today. The backbone of the transportation system in this country, the country's network of roads and highways, is essential to our economic well-being.

The importance of a good highway system to the automobile manufacturing industry may seem self-evident. Our customers, of course, depend on such a system to get the best use of our products, the ones that we produce, and it is important to us that they do that well. However, what may be less obvious is that we, as manufacturers, increasingly depend upon the highway system to make possible the production as well as the delivery of our vehicles. In every sense, the very competitive times that we live in require lean production and "just-in-time" deliveries. They are the watch words of the industry today.

Motor vehicle manufacturers depend on the timely and safe delivery of parts and components to keep the assembly lines moving efficiently, to hold down costs and to stay competitive nationally as well as globally. Today, over 90 percent of all shipments to AAMA member company plants are "just-in-time" deliveries. That is a two to threefold increase in just 5 years. More than 50 percent of the dollar value of shipments to AAMA plants arrive by trucks. It is little wonder that highway access is a major consideration when locating a new plant. Simply put, a good highway system is not an option; it is an absolute necessity and a lot of jobs depend on it.

Direct employment by AAMA members alone totals over 700,000 people and 900,000 supplier jobs are supported by Chrysler, Ford and General Motors. There is another 600,000 jobs in auto-related employment. The importance of the highway system to the automobile industry, as significant as it is by itself, is of course magnified many times over throughout the entire economy and society in general.

To cite just one set of indicators, in 1990, highways accounted for 86 percent of all U.S. passenger and 77 percent of all U.S. freight transportation expenditures, $800 billion combined representing 18 percent of the Gross Domestic Product. So the importance of our highways to the purchasers and users of motor vehicles is abundantly clear.

Mr. Chairman, our transportation system moves more people, more goods, greater distances at less cost with greater safety and the least degree of environmental impact than any other system on earth. This is a record to build on, not to sit on.

It should also be kept in mind that in the plan submitted to Congress last December, 98 percent of the proposed 159,000 mile NHS is on facilities already serving traffic. Lest anyone get the wrong impression, the NHS is an effort to upgrade our roads and not pave over America.

To be competitive in the 21st century, we need a 21st century transportation system and a 21st century highway system. Unfortunately, today our highways are beginning to look and feel more like the 19th century than the 20th century, never mind the 21st century. Too many of our roads and bridges are in need of repair and although we have plenty of potholes this winter, there is more to the pothole than just the patching problem and inconvenience. Potholes affect our competitiveness as a Nation and truly the competitiveness of the American automobile industry.

Take the North American Free Trade Agreement. NAFTA is expected to translate into thousands of vehicle exports to Mexico in the first year alone. This increase in trade will mean new orders

for U.S. auto plants and more secure jobs for America's workers. It will open new export markets.

What is clear today is that America's car companies are moving into the 21st century, they are moving there aggressively. Let's join together, designate this National Highway System, have it meet our needs and recognize that the need for the National Highway System also has to include the need of intermodal connectors. That means moving people and freight.

Thank you, Mr. Chairman. I'd be glad to answer any questions.

Mr. RAHALL. Thank you, gentlemen.

As each of you know and as we've heard often during the consideration of the NHS, this system as it is proposed by the DOT includes only approximately 4 percent of our Nation's existing public roads. The major emphasis of the NHS is on preserving and maintaining existing roadway, not to pave over America as you said so well, Mr. Card.

My question for the panel is, would the panel support establishment of Federal construction and design standards for the NHS?

Mr. DONOHUE. Mr. Chairman, in every walk of life and every industry in this country, people are making commitments to their customers and they have to meet them or they don't keep those customers. We believe that a series of standards that left local flexibility for local circumstances, that stuck to the building of roads and stayed out of the employment of people and other factors, would be very much in order.

We have occasionally because of the shortage of resources resorted to the peanut butter theory of building roads and that is we have taken it and spread it as thin as we could as far a we can to cover as many children in the family. I think we ought to look now to the future and build roads based on what we've learned and build them to last a long time. If some standards and commitments by those that build them and some responsibility by those that design them would help us make those roads last longer and spread our dollars further, we'd support it.

Mr. LAMM. My reaction to that is that we are doing things differently again, as I mentioned in my testimony, in this decade than we did 50 years ago when the interstate was developed. Your predecessors proposed and enforced strict Federal standards on design and construction for interstate highways. They were really autonomous, single feature kinds of highways and it was possible to do that in that era.

I believe today we need more flexibility. State and local governments need to identify some way that they can have changeable standards depending on the amount of traffic a particular facility is designed to handle.

Having said all that, I think again, as both my fellow panelists have mentioned, we are in an era where we've tried to do too much with too little funds and we should be building quality. If we're talking seriously about a quality highway system, quality means not only in the length of the system, it means in the depth of it as well. So we really ought to be building perhaps to the 40-year standard that others have suggested prior to this.

Certainly we should not have major road facilities where you can predict the appearance of orange detour markers every single construction season.

Mr. CARD. I feel that the National Highway System's purpose was to develop a network beyond the interstate network, the defense network in those 21 corridors that were established by Congress, and to identify highways that are essential to our economic well being. I do think it makes sense to have standards that apply to that particular network of roadway.

However, I think it should recognize the responsibilities of State governments to determine the value of the particular highways that have been designated. As we know, the National Highway System is not designating only interstate systems; it is designating roads that are important under different criteria at State and local levels. I think we should have flexibility with minimum standards that are set for the National Highway System.

Mr. RAHALL. DOT recently did a study entitled, "Border Crossing" and submitted it to the Congress. In that study, they did not recommend any additional funding at this time to provide for transportation improvements at our border crossings.

In this NAFTA era and with the associated anticipated benefits, would this panel support additional funding for international border crossings?

Mr. DONOHUE. The studies that have been done suggest that we have about a million border crossings a year now and that with trade increasing and NAFTA taking effect over the years between now and the end of the century, which are about 70 months, we will go up to 6 million border crossings.

When you stop and think about the interdiction of drugs and the time it takes to be sure that those trucks and other vehicles are free of drugs, we could be backed up to Caracas, Venezuela if we're not being careful about investing in infrastructure and systems that let trucks and cars move in a sensible way.

The system DOT has proposed to the Congress makes major improvements in roads between Minneapolis or Denver, Colorado and other major cities and the Mexican border. On the other side of the border, there are major investments being made both by the Government itself and in the area of privatization of roads.

I think as the consultative groups that have been established by the Congress begin to meet, they are going to point out to this committee and to others certain border crossing improvements that are going to have to be made. I don't think they are going to be the most expensive things that need to be done but I think there will have to be investments in the out years and some experience is going to dictate what it is we need. I think it would be folly to think we are going to increase trade at the rate we have planned and not expect to have to make some investments beyond that, those of which are under discussion now.

Mr. LAMM. To me, one of the strengths of DOT's proposed NHS system is that where you had 16 border crossings in Canada or Mexico on interstate highways, you now would have 53 crossings on the National Highway System route. I believe obviously some

element of the National Highway System funding would be provided for corrections at border crossings and enhancements at border crossings.

I serve on the boards of a number of organizations including the Travel Industry Association. Much of the problem at border crossings is not strictly the roadway facility, it is the slow pace of passing travelers through from one side to the other, the slow pace of passing freight through from one side to the other. Without improvements in those kind of administrative problems, all of the strategic infrastructure investments won't pay off.

Mr. CARD. I feel it is appropriate that resources be allocated to foster the movement of goods across the border as NAFTA takes effect. I think it is realistic to expect that more resources will be needed and I do appreciate the number of crossings that have been included in the NHS study as an expansion of the current system.

I also feel that there are other enhancements that feed that pipeline, among them the consideration of grade crossing (the intersection of highways and railroads) is a very real concern, also I would say the intermodal connectors that are necessary to foster better trade between the north and south. Those all have to be considered and there would be an allocation of resources necessary to meet the need.

Mr. RAHALL. One final question, gentlemen.

We are going to move expeditiously in approving this NHS system through this subcommittee, the full committee and hopefully the full House before the year is half over. Unfortunately, we do not hear many public statements from that other body along the same lines.

I've been here 18 years now and Congress doesn't very often do anything ahead of schedule, but I'm hopeful that we can do that for a change. If we don't, what would be the effect of not approving the NHS and thereby losing all interstate maintenance funding on the members of each of your organizations?

Mr. DONOHUE. You heard Chairman Mineta say before that just driving to work, he's having some problem with the potholes because of the weather. Failure to maintain the maintenance of this system will lead to more accidents and fatalities on the highway, it would lead to a significant reduction in national productivity, and it will ultimately lead to the loss of jobs.

More significantly than all of that is while we are not doing the maintenance, we are continuing to grow the volume and demand. If we maintain a modest economic growth of 2.5 to 2.8 percent, we are going to have increases over the next 6 years or 5½ years of 30 percent in freight and 31 percent in miles driven. If we don't maintain these roads on a day-to-day basis, we very, very quickly will fall behind that curve. The end result is very simple. Jobs will move from the middle of this country, from rural areas and they will move to ports and they will move to centers of transportation. Economic growth in general will slow down and truckers will have a difficult time moving the goods that people need moved.

I will say, however, that if this system in total is not put in, truckers will make more money. That is because they will be limited in the amount of freight they can carry by the capacity to carry

it and they will carry the highest bid freight. We would much rather carry everyone's freight and benefit from a very strong economic system and to do that, we need a National Highway System and we need it very soon.

Mr. LAMM. I mentioned early on in my testimony that our members have established the National Highway System as our top priority, not only in 1994 but until it gets approved. We have not really developed a contingency plan because living without a National Highway System would mean just too much economic disruption for our members.

I would mention it is my understanding that the Senate committee, Senator Baucus and several of his members, has introduced the Administration bill today and have even been talking about scheduling a hearing in that body in April. I am hoping that with good progress from this committee and a bill which doesn't totally turn off the other body we can work much more quickly than the original schedule might have suggested.

Mr. RAHALL. Maybe there is light at the end of Congress.

Mr. CARD. There is also an election at the end of the tunnel, sir. [Laughter.]

America's car companies are obviously extremely dependent upon the National Highway System and we would like to see its designation come early. If there is further deterioration in our road system in America, clearly that would affect the competitiveness of America's car companies as they compete in the global market.

Right now, America's car companies are doing very well. They have learned how to compete, they've learned how to produce quality products, listen to consumers and meet consumers' expectations. Part of their ability to compete well includes the transportation network that serves their assembly plants and their customers. If the road network that serves those plants is such that "just-in-time" deliveries are interrupted, clearly there would be a huge disruption in the productivity of those plants; there would be a huge disruption in cost to the manufacturers that produce vehicles for the consumer; and I think there would also be a far greater opportunity for other global competitors to come in and beat us at our own game.

Mr. RAHALL. Thank you, gentlemen.

I'm sorry, the Ranking Minority Member has come in. I had not seen him before. Mr. Shuster?

Mr. SHUSTER. Thank you, Mr. Chairman.

I've reviewed the testimony of the distinguished witnesses and I think it makes a great contribution to our deliberations. I thank you for being here.

Mr. RAHALL. The gentleman from Georgia, Mr. Collins?

Mr. COLLINS. Mr. Donohue, you mentioned the elections at the end of the Congress. That's true. I think those elections at the end of this Congress may have a difference in the next Congress' agenda. Should we delay acting on important issues that we are replacing such as our transportation needs.

You mentioned environmental impact on the truck usage. Given the air quality problems that are linked to vehicle emissions, do you really want to do anything that will allow truck mileage to increase in this country?

Mr. DONOHUE. Congressman, if we don't allow truck mileage to increase, we will not be able to move the freight that the Congress, business and others have suggested will be forthcoming as part of our economic growth. The question really is how do you move that freight in the most environmentally friendly way.

We have all seen that the Environmental Protection Agency just the other day released under court order a new set of requirements to take effect in 1999 in California. By the way, if those requirements stand, we won't move any freight in California. We need to find a middle ground here that works.

The fact is the congestion when trucks are sitting still because the roads are not capable of handling the total traffic, there is more environmental effect than when trucks and cars are moving at a reasonable pace. One of the things the National Highway System will do is allow us to move this increased volume of freight that all of us want and to do so in an environmentally friendly way by moving at a reasonable pace.

We have just made significant investments in clean diesel fuel and different diesel engines and we've reduced to a very small fraction the amount of pollution that we create. If the truck and the car is sitting still in traffic congestion, it creates more pollution than if it is moving at a regular pace.

I think there is a great opportunity here to achieve complementary objectives. That is to move the freight that we need to create the jobs and to do so in an efficient way that makes the environmental impact as small as possible.

Mr. COLLINS. You mentioned that we will have a number of additional trucks on our highways in the future due to the growth in our economy and the need for service. What about vehicle size limitations that may require smaller and lighter vehicles than are currently allowed by States? What kind of impact will that have on us?

Mr. DONOHUE. First I'd like to call the committee's attention to the fact that while we're having a 30 percent increase in the amount of freight—this is after the railroads double their intermodal freight—we're still going to have 10 or less percentage than that increase in trucks because there is going to be more efficiency in moving the freight. Therefore, we are not going to have a percent, percent increase.

If someone were to go out tomorrow and say that we were to use smaller trucks or limit the size of our trucks, we'd have a serious dilemma. We would then add multiples of additional trucks to the highway, we would have additional accidents just by the multiplication of congestion and more trucks, and we would affect our productivity.

I would like to call attention of the committee to the fact that while we have an 80,000 pound cap in this country, in all sorts of States there are exceptions. For example, in the State of California, the Port of Long Beach just increased its weight to 91,000 or 92,000 pounds and they said this would allow Long Beach to catch up with Oakland, Seattle and Tacoma.

If we were to hold to 80,000 pounds where there are now permits, we would impede the ability to do intermodal freight with the railroads. How would we get the heavier containers from the ships

and take them to the railroads? How would we take them from the railroads to the ships? How would we move heavier equipment that is moved by permit? How would we move coal and other things that move by permit?

I think what we need to do in this matter is refer to some studies that are done by the Transportation Research Board, look at what we are actually doing in this country, look at the tremendous increase in our safety record, a 40 percent increase in miles and a 40 percent decrease in fatalities. I think we need to pay attention to our knitting and not to the emotion that is being generated by some people that have some other economic interest in mind.

Mr. COLLINS. Mr. Card, Mr. Petri asked that we address this particular question to you. Mr. Petri goes on to say, I don't know whether you have had a chance to see Mr. Ed Harper's testimony—Mr. Harper will be testifying shortly representing the railroad industry. Mr. Harper intends to propose several ideas concerning improved safety of highway, rail grade crossing by eliminating many grade crossings. I'd like to ask whether in your experience as a former Secretary of Transportation, you have any thoughts about grade crossing safety, particularly with respect to need for a vigorous national effort to eliminate many of these dangerous crossings through closure and also building bridges to separate at grade crossings?

Mr. CARD. I have not read Mr. Harper's testimony. I guess I have the gist of his testimony to understand what he wants to talk about. I feel somewhat uncomfortable sitting between Mr. Donohue and Mr. Harper but I would point out that both of them drive American-made cars to work every day.

I think that it is incumbent on the National Highway System to recognize the value of eliminating to the extent possible as many grade crossings as they can. There are a number of benefits, the most significant happens to be safety. There are huge number of very tragic accidents at grade crossings every year. When I was the Secretary of Transportation, I made an effort to try to call attention to the safety challenges at our grade crossings. So I do think the National Highway System should be especially sensitive to those roadways that do have railroad grade crossings on their path and to the extent possible, we should work with State and local governments to mitigate the problems and make our National Highway System that much more efficient, as well as that much safer.

Mr. LAMM. Mr. Collins, excuse me. I have an opinion on that as well.

In addition to being a member of Highway Uses Federation and other organizations, I serve on the board of Operation Lifesaver, Inc. which is dedicated to eliminating as much as possible the problems at rail highway grade crossings.

In my view, the National Highway System is the system of roads on which the Federal Government devotes the most attention in the years to come. It should be not a gold-plated system but it should be the system that incorporates all of the improvements that we know how to do in the interest of better technology and better service to our traveling public.

I believe particularly as increased freight movements begin to be channeled on National Highway System routes, we should try to eliminate as many as possible of the rail highway grade crossings.

Mr. DONOHUE. Mr. Collins, if I might say, that makes a good deal of sense. Then one asks the question, how do we do it and how do we pay for it. There are places where it makes a lot of sense to use highway funds to improve the movement of cars and trucks in those corridors. There are also places where it makes sense for the railroads to participate in that process. We have very nice relationships with Mr. Harper and his colleagues and I'm sure if he is interested in pursuing this matter, we can find a joint way to invest our mutual funds in getting that done.

Mr. COLLINS. I will say that there is a particular bridge over a rail system in the Third District that CSX is participating with the State rather extensively in replacing such bridge. So there seems to be some effort in a lot of areas.

I was telling Mr. Harper earlier about when I was a county commission chairman in Bucks County, Georgia about 14 or 15 years ago, a particular rural crossing where the road had just been paved, a log truck was traveling through there and the guy stopped and attempted to make the crossing and there happened to be two bad curves, one on each end of the crossing. The train came around one of the curves rather fast and cut that trailer in two. Fortunately, it didn't hit the tractor or injure the driver.

I called the State department of transportation district engineer to ask him if we had any State funds available to help us with signals at that crossing and he said, no, we're out of dollars. We don't have any money available. I said, would you please come over and let me show you this crossing. He finally did. I loaded him in my pickup truck and we drove down to the crossing. I drove up on the crossing on the tracks and reached over and just cut the switch off and pointed to each curve.

He immediately understood the danger of the crossing and said if you'll crank this truck, get off this crossing, I know we have some money to put a signal up. So we did and we did have a signal very shortly after that and we have not had anymore problems at that particular crossing. So there are ways to get things done at dangerous crossings.

Mr. Card, a little about "just-in-time" manufacturing. I enjoyed a tour of the Ford Motor plant in Hayford, Georgia just last year and it was interesting to learn that they have just in time inventory of 6 hours. What will be the impact on our system as far as congestion—you mentioned a bit about this earlier—if we don't address our National Highway System and how will that affect us in the global marketplace?

Mr. CARD. Clearly, if we do not have the ability to meet just in time expectations at an assembly plant or at our parts manufacturing facilities, we would very, very seriously affect in a negative way our ability to compete in a very competitive market. America's consumers understand a good value at a good price and if we are not able to produce using just in time delivery techniques, then we will have a tough time delivering that good value at a good price because the pipeline will have been clogged. Clearly, it is very important.

I don't think there is any single transportation issue that is more important than the designation of this National Highway System and a recognition of the intermodal connectivity that has to go with it. I am somewhat troubled at the actual designation of the system. In some places, there are holes where there should be recognition of intermodal connectors but those are in particular areas. I think they should be looked at as you review the whole plan.

Clearly, this National Highway System was designed to complement the efforts of the Intermodal Surface Transportation Efficiency Act and addressing the big picture challenges of surface transportation beyond just trucks, cars, railroads, seaports or airports. The National Highway System is an integral part of the overall solution.

Mr. COLLINS. Based on today's cost of inventory and the cash flow required to maintain inventory, not only because of the cash flow will cause local taxation on local inventories in many areas, it is important to business to be able to go to just in time inventory.

That is all that I have and I appreciate you gentlemen.

Mr. LAMM. Mr. Collins, may I just mention one point. I listed six examples from some of our members and one is particularly enlightening, very close to what you talked about but perhaps even more so, a General Motors experience where their just in time requirements involve a 230-mile trip by 23 trucks now, and will increase to 70 truck deliveries per day, and their customer calls for a 15-minute window. So there is just in time carried to a very precise limit. Obviously is there is any kind of breakdown in travel, then you lose an entire shift by virtue of not having that shipment there just in time.

Mr. RAHALL. The gentleman from Wisconsin, Mr. Petri?

Mr. PETRI. I want to thank my colleague from Georgia for asking the questions I was interested in. I want to thank all of you for your testimony and your help to this subcommittee. I hope, Mr. Donohue, your group had a good time in the 6th District of Wisconsin. We certainly would like to see you come back sometime to our State again.

Mr. DONOHUE. We are anxious to do so and drive on the roads that are being upgraded there, sir.

Mr. RAHALL. The gentlelady from Washington, Ms. Dunn?

Ms. DUNN. No questions. Thank you, Mr. Chairman.

Mr. RAHALL. Thank you very much, gentlemen, for being with the committee today.

The subcommittee will now hear from a panel consisting of the following individuals: Mr. Edwin L. Harper, President and CEO of the Association of American Railroads, Washington, D.C.; Mr. Edward M. Emmett, President, National Industrial Transportation League, Arlington, Virginia; Mr. H. Thomas Kornegay, Executive Director, Port of Houston Authority on behalf of the American Association of Port Authorities and Mr. David J. DeBoer, Vice President, The Greenbrier Companies, Walnut Creek, California on behalf of the Intermodal Association of North America in Riverdale, Maryland.

Gentlemen, we welcome you to the subcommittee. We do have your prepared testimonies and they will be made a part of the record as if actually read.

Mr. Harper, we already know what you are going to testify to, so you may go first.

TESTIMONY OF EDWIN L. HARPER, PRESIDENT AND CEO, ASSOCIATION OF AMERICAN RAILROADS; EDWARD M. EMMETT, PRESIDENT, NATIONAL INDUSTRIAL TRANSPORTATION LEAGUE; H. THOMAS KORNEGAY, EXECUTIVE DIRECTOR, PORT OF HOUSTON AUTHORITY ON BEHALF OF AMERICAN ASSOCIATION OF PORT AUTHORITIES; AND DAVID J. DeBOER, VICE PRESIDENT, THE GREENBRIER COMPANIES ON BEHALF OF INTERMODAL ASSOCIATION OF NORTH AMERICA

Mr. HARPER. Thank you, Mr. Chairman.

Distinguished members of the committee, my name is Edwin L. Harper. I am President and CEO of the Association of American Railroads.

The railroads view the designation of the National Highway System as the next important step after ISTEA in the development of a truly integrated, intermodal national transportation system. The efficiency of our intermodal system is vital to our ability to compete because, unlike our offshore competitors, U.S. manufacturers must deal with vast distances. The railroads, trucks, barges, ports and ocean carriers are forming partnerships which are resulting in a seamless intermodal transportation network in the U.S. that is interlinked and interdependent.

As a result of intermodal movements, trailers and containers on flatcars are up 110 percent since 1982. There are three issues related to the intermodal dimension of the system which I'd ask the committee to consider in designating the National Highway System.

First, please stress the "I" in ISTEA. The landmark legislation which this committee originated, the Intermodal Surface Transportation Efficiency Act, anticipated special attention to intermodal facilities. The roadway linkages among truck, rail, barge and ocean carriers have not, however, been given the priority that ISTEA anticipated.

Let me illustrate the problem. The Santa Fe Railroad's Corwith Intermodal Terminal in south Chicago covers 135 acres and annually handles 900,000 containers and trucks—if Mr. Oakley could point out where the Corwith intermodal facility is here on the map of Chicago. All of this translates into about 1 million truck moves in and out of the Corwith Yard each year. As you will see from the photograph over there, the entrance does not even have traffic signals.

To give you an insight into how low a priority intermodal freight movements are given by local transportation planners, a small new bank up the street is getting a new left turn lane and an electric signal, yet it may have less customers per year going into that bank than Corwith has trucks per week. This map further illustrates the problem. At Kedsey Avenue, as you can see, and Interstate 55, only eastbound trucks have access into the yard. You'll

notice, it is only half an interchange. To go west on I–55, you have to go 4.5 miles to the Pulaski Avenue interchange over streets such as you see in the photograph right there.

Now, let's look at the Archer Avenue bridge. You'll see the Archer Avenue Bridge denoted there on the map. This is what the bridge looks like. The street has been resurfaced so many times there is no longer room for a truck to get under the bridge unless the driver knows exactly where to go and perhaps deflates the tires. This is not unique in Chicago at the Corwith Yard. It is the same kind of problem that we find in cities across the country.

Because of this local myopia, Congress needs to make sure that connectors get priority through the ISTEA planning process. Congress needs to ensure that all eligible connectors are included in the NHS. That process can and should be faster than the Administration's current two-year proposal. A one-year process should be ample.

Finally, NHS designation should be flexible. As railroads and truckers build new intermodal terminals or reconfigure old ones, new roads and new streets should become eligible for NHS status and funding.

Let me again refer to the vision of ISTEA for my second point. ISTEA imposed a Federal freeze on the use of long combination highway vehicles, LCVs, and reaffirmed Federal weight limits at 80,000 pounds. It turns out that ISTEA left a gap in the regulation that has resulted in a repeated ratchetting upwards of truck sizes and weights to length limits of 57 or even, in some cases, 60 feet, and weights approaching 90,000 pounds. Extra-long trailers are now poised to spread explosively across all 50 States.

As extra-long trailers spread, there will inevitably be pressure to increase truck weights. We would be back in the same ratchetting mode and taxpayers would end up paying the bill as heavier trucks and increased truck traffic mean shorter highway life and more highway maintenance. Taxpayers are already annually paying a huge highway maintenance bill of $7.5 billion.

Where does it end? If single trailers are allowed at 60 feet and weights approaching 90,000 pounds, is there still logic in the LCV freeze? The general public has the answer, trucks are big enough now. Seventy-five percent of the public would like to see a cap on truck lengths, according to a May 1993 poll conducted by Frederick/Schneiders, Inc. for the AAR. Eighty-one percent would like to see an end to truck weight increases.

While the worst danger of 57s is ratchetting, they would also pose a direct problem for intermodal freight because only 2 percent of current rail equipment can handle 57 foot trailers without severe efficiency losses. Doublestack cars which are 40 percent of our intermodal fleet are completely incompatible with 57s.

As the experience with 53s shows, States cannot resist the ratchetting effect of truck size and weight increases. Only the Federal Government can recognize the national interest in an efficient intermodal transportation system. Federal law now puts a 48-foot minimum on trailer lengths. The AAR urges the Congress to add a trailer length cap at 53 feet to existing Federal caps on LCVs and truck weights.

The third point I'd like to raise involves highways crossing rail rights-of-way—grade crossings. We urge the Congress to set an NHS goal of eliminating highway-rail grade crossings to improve the safety and efficiency of both highways and the rail system. What we would propose to assist State and local governments in dealing with the politics of the grade crossing elimination issue is that a standard process and standard guidelines be established by which consideration on an objective transportation safety and utility basis be developed and considered.

In closing, we feel these three issues deserve an important part of your consideration in developing a National Highway System to achieve the objectives this committee laid out in ISTEA.

Thank you.

Mr. RAHALL. Ed.

Mr. EMMETT. We appreciate this early hearing and the opportunity to testify today.

My name is Ed Emmett. I appear representing the National Industrial Transportation League which is the oldest and largest shippers organization in the United States. League members produce and ship all kinds of freight by all modes.

It is probably appropriate, since health care is such a topic this year on the Hill, that we draw an analogy between the transportation system and the human body. Everybody knows the better the flow through the veins and arteries of your body, the better the health. The same is true for the economy of the United States, the better the flow in the transportation system, the better the economic health. The National Highway System is, in the opinion of the National Industrial Transportation League, clearly a key component of that transportation system. That simply is why we are here today, to support the National Highway System.

A couple of points that I would like to make and leave you with today. First, it probably should go without saying but it sometimes does get forgotten that transportation systems exist really only for the users of those systems, not for any other reason. Frequently in designing transportation systems, we have seen projects built that don't necessarily serve a particular purpose. We would certainly hope that the projects in the National Highway System will be those that serve specific users and purposes.

Secondly, all of us who have been associated with transportation realize that it is an area of constant change. So whatever system is designed, I know this committee, and hopefully you will prevail upon the rest of Congress, will maintain a broad vision in terms of where this system is to take us into the future.

Thirdly, an issue that will no doubt come up because of simply the politics of it is the whole question of freight transportation versus commuters. Everyone in this room, as Mr. Mineta pointed out earlier, commutes to work so we all have those feelings about our commuting needs. It would be short-sighted if we just met the commuting needs and forgot about freight transportation because without the freight transportation, the jobs wouldn't exist and there wouldn't be any reason for anybody to commute.

Finally, it is very important to realize that the National Highway System is part of a much broader transportation system. It really is part of an integrated system that involves rails, ports, all types

of intermodal facilities and we would hope the National Highway System would take that into account and certainly tie into all of those other modes, that it wouldn't just operate in a vacuum.

As you move forward in considering the National Highway System, the shippers of the League stand ready to assist you in any way possible in terms of traffic studies, in terms of any advice or anything we can show. We would be happy to do that.

Again, I appreciate the opportunity for you holding this early hearing. We think the earlier this system is acted upon and put in place and funded, the better the economy of the country.

Thank you very much and I beat the red light.

Mr. RAHALL. Thank you, Ed.

Mr. Kornegay?

Mr. KORNEGAY. My name is Tom Kornegay and I am the Executive Director of the Port of Houston Authority and I'm speaking here today on behalf of the American Association of Port Authorities.

Founded in 1912, AAPA represents virtually every major U.S. public port agency as well as the major port agencies in Canada, Central and South America and the Caribbean. My testimony today, however, reflects only the views of the United States delegation of AAPA.

The U.S. public port community strongly supports the creation and designation of a National Highway System and the concept of expanding it to a national transportation system. U.S. public ports are also strongly supportive of the provisions of ISTEA that recognize the need to expand the scope of U.S. transportation planning and funding to include the needs of intermodal freight transportation as incorporated in the goals and provisions of ISTEA. Ports are truly intermodal and we are encouraged that provisions of ISTEA promised to meet critical intermodal needs. After two years, we are less encouraged.

Freight projects meeting national transportation needs still are not competing well for a fair allocation of funding with local decisionmaking. The need to increase the focus on freight and afford it the priority it deserves was clearly voiced in the outreach meetings that the Transportation Department held on ISTEA last year.

We believe that freight projects meeting national needs will not receive their fair share of Federal aid unless and until the Federal Government directs State and local governments to do so. The expression "freight doesn't vote" sums up the political reality at the local level. The needs of passenger traffic are considered first and there is little or no thought to providing access to intermodal facilities handling freight.

Given the size of the NHS itself and the flexibility to transfer NHS funds to other program categories, inclusion of a project that would benefit freight movements on the National Highway System does not alone mean those projects will ever see any funding. The expansion of the NHS into a national transportation system is an important next step. However, we should not stop there either.

AAPA respectfully offers the following suggestions. First, ISTEA should be made truly intermodal by allowing the use of all program funds for rail freight projects. Currently only congestion mitigation and air quality funds, which are limited, can be used for rail

freight. Many worthwhile port-rail freight access projects for both rail bridges and double-stack train access have been rejected for funding for this reason.

ISTEA should create a financial incentive to fund national need projects, particularly access to intermodal facilities either through a separate funding source or a higher Federal cost share for projects meeting certain criteria.

The Administration should develop and support innovative financing ideas for transportation infrastructure projects. For example, we would urge Congress to enact H.R. 3231, a bill that would allow the use of tax exempt bonds to finance transportation facilities beyond the dock including package or rail facilities.

U.S. ports invested more than $12.5 billion from 1946 to 1992 on port and related shoreside transportation infrastructure and we are expected to invest more than $5.5 billion over the next 5 years. No matter how productive those marine terminal facilities are, or how accessible the port is by ship, our port systems cannot operate to maximum efficiency if the port is not readily accessible from the land side. The intermodal transportation system can be compared to a pipeline with its overall efficiency determined by the pipeline's narrowest section.

With the serious shortfalls in public budgets, public investments must be directed where they are most needed. That is, directed at the narrowest sections which are increasingly the connections to the port and the interstate highway system or rail.

Since the amount of international cargo moving through the U.S. ports has been projected to triple by the year 2020, the need for an efficient landside access can only increase and must be planned for today. Even though ISTEA favors decisionmaking at the local level, further program guidance at the national level in the area of freight movement is appropriate because it reinforces the country's fundamental dependence on international trade and commerce.

The expenditure of Federal funds on projects that promote our Nation's ability to handle the export and import goods being traded in the international markets is an investment worthy of Federal markets. If changes are not made, we are concerned that other freight projects will have to continue competing for transportation funds under a process that inherently favors traditional transit and highway projects.

AAPA pledges to work with the subcommittee and the U.S. Department of Transportation to improve and refine ISTEA in order to ensure the accomplishment of the law's intended goals.

Thank you, Mr. Chairman. I'd be happy to answer any questions. I apologize for borrowing some of Mr. Emmitt's time.

Mr. RAHALL. Mr. DeBoer?

Mr. DEBOER. I'm David DeBoer. I am appearing here on behalf of the Intermodal Association of North America and as a working freight intermodalist of some 30 years.

I've got four points I'd like to make today. I think possibly some of my experiences as a working intermodalist may help.

First, I want to thank you for what you did in ISTEA in the concept of moving the municipal planning and funding from the State highway departments to MPOs. Before your legislation, I didn't

have a clue about what an MPO was but I sure knew what a State highway department was.

To share with you at least one of those experiences, when I was running an intermodal operating department for one of the major railroads, I went with two of my colleagues to the State highway department to try to get three left turn lights erected to allow truckers easier access to our facility. That, gentleman, is where the quote, "People vote, freight don't," came from—the highway department—because that was the direct quote. We decided it was probably more productive to go work on the railroad rather than the highway, after that and it was ever thus until ISTEA.

We were urged then to get involved with our local MPOs. Mine is the MTC in the San Francisco Bay area. I've been working with them for a year and a half. We have a Freight Advisory Committee made up of truckers, railroaders, suppliers, ports and we all get along extremely well. Larry Dahns has accused us of having a Top 40s list when we started off; we've gotten it down to a Dirty Dozen, and we have virtually unanimously supported the Port of Oakland's project for a joint intermodal terminal.

We will also, with the Intermodal Association of North America, RPI and some other groups, be getting together as an intermodal coalition for freight projects and also endorsing such projects as an intermodal facility for Stark County, Ohio in the Alameda Corridor in Los Angeles.

The second point I'd like to make is that we would encourage, as the AAPA, an expansion of the concept begun under ISTEA, expanding it to other freight projects as we go.

The third point is that the NHS is critical to the intermodal process. I don't know for sure, but I would guess that Kedsey Avenue is a street in Chicago. I can tell you that our members currently are being fined $1,000 to $1,500 a load because the city streets of Chicago have a lower weight limit than the interstate system does and to try to get from an intermodal facility to a Federal highway, they are currently being assessed major fines for being on the city streets. We think those streets should be a designated part of the NHS.

I know that there is a proposal to extend for two years the identification of NHS candidates to intermodal facilities. We would like to support that concept but urge that the time frame be lessened to put the heat on us a little bit to get in and explain to you what needs to be done.

Finally, one of the things we'd like to commend to your consideration is the potential use of closed military bases for intermodal purposes. What looks like an air strip to some people with nice thick concrete, to me looks like a wonderful place to put an intermodal facility. While there aren't going to be a whole lot of these that are going to be candidates, even the use of two or three would be a major improvement for the communities which have lost jobs and would help us on the intermodal side.

I want to thank you for the opportunity to appear and I'd be happy to address any questions.

Mr. RAHALL. Thank you, gentlemen.

Let me begin by discussing briefly a point I hear the panel stressing and that is the need to look at the intermodal aspect of

ISTEA, to not forget about the "I" as you've said, Ed, in ISTEA. I think that is what we have done in that legislation. It is truly intermodal. I believe it speaks to the vision of the future of transportation in this country, as Secretary Peña has in discussing the national transportation system for the future. It tries to move away from the way we have viewed transportation modes in a vacuum in the past, and it tries to provide for this intermodalism.

We require in ISTEA that in the planning process, for example, States and localities must make intermodal freight connections an extremely high priority. In addition, ISTEA already requires States and MPOs to consider intermodal transportation facilities, major freight routes and methods to enhance efficient movement of freight in developing overall plans and programs.

My question is, what more can we do? What is your recommendation? What more can be done to make intermodal connectors a high priority in ISTEA? Ed?

Mr. HARPER. I'd be glad to lead off on that. I think you've got the vision exactly right. It is the vision that we need to see reality evolve into. Unfortunately, the reality is what we have photographs of here—that it hasn't been happening.

We considered the possibility of suggesting a set aside of funds for intermodal connectors and I guess we would lay that on the table as a possibility. However, I recognize that creates some rigidities in the process that are undesirable for various reasons.

I guess our suggestion comes down to directing the Department of Transportation to make sure that these MPO plans and the State plans do incorporate the intermodal connectors into the plans, and on the second point of flexibility, some roads may be designated now, some may not be designated now, and in the future there may be need to designate some that aren't currently designated.

For example, another Chicago case if you will pardon me for being so geographically focused for a moment. There, one of the Nation's major trucking companies and the railroad are creating a massive new intermodal yard of some 250 acres. There it has been critical to work with the State—and they have been able to successfully work with the State—and to work with the Federal authorities on the Interstate Highways as well, and the railroads and trucking companies are putting money into the on and off ramps, the connecting routes there to make that happen.

I think as we go forward and as other new yards are created—for example, the Norfolk Southern is just developing an 800-acre yard in Atlanta, Georgia—that you'll see this continuing evolution of the need to be flexible with the need to incorporate direction from the top down, from the Department of Transportation, to make sure that what you have envisioned in ISTEA is enforced as it is applied at the State and local level with the funds for ISTEA.

Mr. RAHALL. So ISTEA, as it is worded, is fine. The problem is transferring it to reality?

Mr. HARPER. Right.

Mr. EMMETT. I believe ISTEA was a great first step. The National Highway System is a wonderful opportunity to implement exactly what we are talking about here to get beyond perhaps the local politics of the situation and into a truly intermodal system

that is based on some vision nationally. That is why we are so supportive of the National Highway System because it is a way of implementing the real meaning of ISTEA.

Mr. DEBOER. I think it is helpful too, I think the NHS designation of some of these city streets where we are stuck right now is going to be critical. I think it is going to probably have city support to take these streets over as a part of the National Highway System and to upgrade them so that we can have both the weight limits we need and also the type of standards we've seen, for example, in the Philadelphia area. There are places where our truckers can't get down onto the city streets without making a double move and coming into the opposing lane of traffic. There are some very, very bad situations that need correcting. It is the last half mile that is the tough part.

Mr. KORNEGAY. If I may, I want to echo what the previous panel members have said that it gets down to a local issue. We have good first step with ISTEA but I can best describe it to you, I believe, the way one of my staff members described it to me when he came back from an MPO meeting. He said, Tom, they believe that intermodalism is getting off an airplane, getting on a bus and going to pick up a rental car. That's just not where it is. They don't understand the freight movement and how important it is.

Mr. RAHALL. Mr. Kornegay, my last question: in your testimony you state that "Freight projects meeting national transportation needs are not competing well for fair allocation of funding with local decisionmaking." Do you have nationwide data on how well port projects are faring in receiving funds through the metropolitan and State planning processes?

Mr. KORNEGAY. I don't have that with me. I can get that for you but let me tell you that to my knowledge, there are only a couple of projects that have really made it. I know that there are a lot of projects that tried to make it and have not. I believe there is one on the West Coast along the Alameda Corridor which was one and I have one in my own hometown that I'm fighting tooth and nail trying to stay in the process with everybody else trying to kick me out.

Mr. RAHALL. We would appreciate receiving that information.

Mr. KORNEGAY. We will get that for you.

Mr. RAHALL. Thank you.

The gentleman from Wisconsin, Mr. Petri?

Mr. PETRI. Mr. Harper and others, welcome.

I can't help but say I'm learning a new phrase—"practicing intermodalist" and am savoring that.

Could you elaborate on trends in intermodal shipping? What does the future hold as you see it?

Mr. HARPER. In terms of the freight movement?

Mr. PETRI. Yes.

Mr. DEBOER. As a guy who has been around for 30 years and was not used to much attention, and having worked in the Government here for a while in DOT, I was delighted to hear the debate of ISTEA. I came into my hotel room one night, flipped on the TV and it was C-Span and it was you folks defending the heck out of intermodal which was a delight for me as an intermodalist who had been trying to fight my way through. I recently gave a speech

in which I said it is sort of like being George Burns and being discovered at 70, an awful lot has gone on before.

One of the things, for example, that has gone on in the railroad side is there are 100 million plus loads of trailers and containers that have been moved since the 1950s in intermodal and it's been expanding at an ever increasing rate. Our growth rate in this recession has been 7 and 8 percent per year. It is really now beginning to work. No longer do I get on an elevator as I did a couple of years ago and a nice lady looked at my badge, Intermodal Association of North America, and said, "Intermodal, isn't that something to do with microchips?" I said, "Yes, I'm very close to the Silicon Valley."

These days, the movement of containers both internationally and domestically is becoming one of the key means of this country increasing its competitiveness.

Mr. HARPER. I could just add that indeed the figures continue to show a growth rate that would represent a doubling every 10 years in the intermodal business. I think one of the other exciting dimensions of it is that intermodal shipments are going beyond just plain boxes or containers being shipped from one point to another; that now we are seeing growth in refrigerated containers and also containers to ship intermodally chemicals that have previously either gone on huge bulk tank cars or over the highway. So there are new options being opened in the intermodal area.

We are also finding people experimenting with much more highly automated intermodal yards. So we will see increasing efficiency in the year ahead and an ability to take advantage of the best of what each mode of transportation has to offer, whether it's truckers on various lengths of haul, the railroads for long hauls of heavy commodities or large commodities, barge lines or ocean freight. There is great room for the partnership that is rapidly developing and growing stronger every day in the intermodal field.

[The following was received from Mr. Harper:]

EDWIN L. HARPER (AAR) RESPONSES TO WRITTEN QUESTIONS FROM THE HOUSE SUBCOMMITTEE ON SURFACE TRANSPORTATION COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

1. **Question:** Is AAR proposing to rollback trailer lengths to 53 feet and truck weights to 80,000 pounds on the NHS or is your proposal to freeze current dimensions? Is this on a route-by-route basis or state-by-state?

Answer: AAR is proposing that Congress impose a cap on trailer lengths of 53 feet. It may be appropriate for Congress to consider some form of "grandfathering" of current operations by trailers longer than 53 feet. We believe the 80,000 pound limit that the Congress imposed on the Interstate System should be maintained.

2. **Question:** Isn't it illogical to spend funds to improve a highway facility and then forbid a state from allowing more efficient trucks to use the highway?

Answer: The logic of spending public funds for highways is to benefit all highway users. The fact is that big trucks are subsidized by the average motorist. It is illogical for a single class of commercial highway user, which is already heavily subsidized, to demand more subsidies in the name of "efficiency" and "productivity" without regard for the convenience, safety, and productivity of the average motorist trying to get to work, run essential errands, or take a family trip.

The clear facts are that productivity gains for big trucks are productivity losses for the average motorist. In recognition of this fact, Congress imposed truck weight limits and a freeze on the operation of longer combination vehicles (LCVs).

Leaving the regulation of maximum truck lengths to the states creates a gap in Federal law that directly threatens the nation's transportation system--including the highway system, as the AAR testimony pointed out. Giving states the freedom to set their own truck size and weight limits is an invitation to advocates of bigger trucks to play states off against each other. So the "freedom" to allow 57 foot or even longer truck trailers is in fact virtually guaranteed to result in nationwide operation of extra long trucks. That's what we have just seen happen with 53s. And these "productivity gains" for the trucking industry will reduce the productivity and safety of other users of the transportation system.

Probably the biggest productivity loss from bigger trucks

comes in the highway passenger car segment of the transportation system. Bigger trucks--all else being equal--delay other motorists and make driving both harder and more hazardous for them. Some truckers argue that these losses in passenger system productivity are balanced by a reduction in the total number of truck miles. But bigger trucks divert freight from the railroad system, increasing the number of truck miles. And economic growth further guarantees a steady rise in truck miles.

The resulting additional truck traffic has, indeed, drastically diminished the productivity of the passenger system. The combination of such consequences as reduced highway safety and increased congestion, pollution, and energy consumption is why polls consistently show that overwhelming percentages of the population (including all regions, income levels, age groups and both sexes) oppose truck size and weight increases.

Truck size and weight increases also diminish railroad productivity. Bigger trucks divert freight from the railroad system, reducing the economies of density that make railroads profitable.

Bigger trucks are also a financial disaster for highway authorities. The 1982 Federal Highway Cost Allocation Study found that heavy trucks paid only about 65 percent of their costs. So more trucks mean bigger repair bills for the highways--which in turn means increased taxes or poorer highway quality.

So there are very large productivity costs to be weighed against the claims that truck productivity, per se, will increase. And at least in the case of 57 and 60 foot trailers, in the absence of weight limit increases, the trucking productivity gains are hard to find. At today's truck weight limits few shipments other than toilet paper or potato chips are likely to benefit from increased truck trailer length.

It's clear, therefore, that when the trucking industry talks about efficiency gains from longer trucks, they must also be assuming that weight limits will be increased--that, in other words, the ratchetting upward of truck size and weight limits is expected to begin anew.

3. **Question:** Isn't the real problem that AAR has with trailer lengths the last figure in your presentation that shows only two percent of railroad equipment can currently carry 57-foot trailers? Should Congress outlaw particular highway vehicles because railroads would have to make a new capital outlay?

Answer: AAR's real concern is that expressed in the testimony: failing to cap trailer lengths means the re-commencement

of truck size and weight "ratchetting". Longer trucks mean heavier trucks and vice versa. And, as noted in my answer to question 2, state option inevitably means state uniformity at a higher level--uniformity that then lasts only until the next round of ratchetting begins. Continued ratchetting will eventually threaten the LCV freeze--and LCVs would mean significant losses in rail traffic and revenues (19 percent of rail ton-miles would be lost annually, according to an AAR analysis).

The 1991 Interstate System truck weight and national LCV freeze in ISTEA was a major step toward ending ratchetting. Congress rejected trucking industry proposals to allow increased truck weights at state option (a clear first move toward a new round of truck weight ratchetting, similar to what occurred between 1974 and 1982). Instead, Congress reaffirmed the 80,000 pound limit and enacted the LCV freeze. By omitting a truck trailer length cap, however, Congress left the way open to longer trucks and, as noted above, a renewed push for heavier trucks. Imposing a length cap would finally end ratchetting altogether.

Congress also committed itself in ISTEA to building an intermodal transportation system. In doing so it recognized that decisions on highway policy are also decisions on policy toward other modes--and vice versa. Allowing further increases in truck size and weight, for example, can, as we have pointed out, harm rail intermodal traffic. Certainly -- as the testimony notes -- 57-foot trailers would create a serious equipment compatibility problem. And the relatively low profit margins for intermodal operations mean that railroads will be extremely reluctant to scrap existing, relatively new, intermodal equipment in order to accommodate 57s. Thus, additional 57-foot trailers will be traveling almost purely over the highway, not by intermodal. This would represent a clear setback for the implementation of ISTEA's intermodal vision.

4. **Question:** When Federal money is used to improve a public highway, the general public has the use of the facility. Are you proposing that Federal money be used to improve private intermodal facilities such as rail yards? If so, how is the public investment protected? How can this be fair to other competitors, such as trucking companies, that don't get Federal funds to improve their privately owned facilities?

Answer: AAR does not advocate that NHS funds be used to improve private intermodal facilities. The AAR testimony is directed toward the funding of intermodal connections--the roads and streets that link together highways, railroads, airports, and ports to create the intermodal transportation system. This is the same goal endorsed by Congress in Section 1006 of the ISTEA. Intermodal connections are public facilities, used by the general

public as well as by those parts of the trucking industry that serve other transportation modes. We, like other members of the transportation community, have urged that intermodal connections receive special priority under NHS, because local authorities may not be able to see the national purpose served by these local roads and streets.

5. **Question:** Improving the safety at grade crossings would have a direct economic benefit to railroads. Closing grade crossings or creating grade separations reduces maintenance costs, increases the speed of railroad operations, and decreases the liability exposure of the railroad. How can we capture these benefits and obtain funds from railroads to improve the crossings?

Answer: In 1973, the Subcommittee on Investigations and Review of the House Committee on Public Works determined:

> "Whose responsibility is it to see that maximum safety is incorporated into our motor vehicle transportation system?
>
> On this, the Subcommittee is adamant. It is the responsibility of government, and specifically those agencies that, by law, have been given that mandate." [House Committee Print 93-7]

Just one month later the Congress passed the landmark Highway Safety Act of 1973, which created the Section 130 Program carried out by appropriate state highway agencies and funded with federal highway user revenues. This important and successful federal highway safety program is based on the Congressional recognition that the direct beneficiary of improved grade crossing safety is the motorist, who pays for that benefit by providing highway user revenues to government to provide for needed grade crossing safety improvements.

Improving safety at highway-rail grade crossing is of little direct benefit to railroads. In fact, the federal government has found:

> "Projects for grade crossing improvements are deemed to be of no ascertainable net benefit to the railroads and there shall be no required railroad share of the costs." [23 CFR 646.210(b)(1)]

Even in instances where there is a complete elimination of a grade crossing the benefit to the railroad is quite limited.

> "On projects for the elimination of existing grade crossings at which active warning devices are in place . . . the railroad share of the project costs shall be 5

percent." [23 CFR 646.210(b)(3)], and

"On projects for the elimination of existing grade crossings at which active warning devices are not in place . . . there shall be no required railroad share of the project cost." [23 CFR 646.210(b)(4)]

Obviously, these findings reflect that the reduction in the cost of maintaining warning devices as a result of the elimination of a grade crossing is the sole significant benefit to the railroads.

Despite this limited benefit to the railroads, the railroads voluntarily contribute significant amounts each year to offset required state and local cost of crossing improvements. In its 1989 national **Rail-Highway Crossings Study** (FHWA-SA-89-001), the Federal Highway Administration found that railroads annually contribute about 15 percent of the cost of crossing improvement projects carried out under the federal crossing improvement program (Section 130 Program). If only projects to eliminate grade crossings through separation structures are considered, railroads contribute over 50 percent of the cost of such projects. Obviously, this average contribution is far in excess of the level of benefit realized by the railroads as a result of such projects.

The railroads today contribute far in excess of the marginal benefits they realize from crossing safety improvements, and obtaining additional funds from the railroads to improve crossings as a direct benefit to highway users would be inappropriate and inequitable.

Mr. RAHALL. The gentleman from Georgia, Mr. Collins?

Mr. COLLINS. Mr. DeBoer, I can appreciate your loneliness and feeling like you've been left out. I recently attended a conference of the American Association of Railroads and having been in the trucking business for over 30 years, I told them that being there among a bunch of folks from the railroad business, I kind of felt like an illegitimate child at a family reunion, we were in a little bit different league.

Mr. Harper, has your industry worked with States and DOT in formulating the NHS map, and in particular, the intermodal connectors? How have the States and DOT been responsive to your concerns?

Mr. HARPER. The Department of Transportation indeed invited us to participate in identifying the major intermodal connectors across the country, and we helped supply them with that information. We worked on developing that information with the individual railroads and with our trucking partners and other partners across the country.

Mr. COLLINS. Mr. Kornegay, with the Ports Authority in relation to containers, which come in various lengths and are loaded with various types of commodities and oftentimes are loaded by those who shipped that may not be familiar with all of our different limitations on weights, lengths and such.

How does the bridge formula and the different tandem weights or the standard interstate tandem weights affect the shipment of containerized freight?

Mr. KORNEGAY. It is a very difficult problem. We do have quite a bit of problem with overloaded containers as you say. Folks overseas sometimes don't understand what the load limitations are and we get containers at our seaport that are too large for the highway loads. We have been trying to address that problem. One way to do it is the use of rail where you can have the container switched to a railroad flat car right at the seaport. The other thing we're trying to do is find corridors that can be allowed to have higher load limits. That is the only two solutions that we have been able to come up with at this point.

Mr. COLLINS. Some States where your off-interstate system has varying types of weight limitations pertaining to tandem weights with maybe an allowance for additional weight on a tandem, Georgia being one of them where you can go from the standard 34,000 on an interstate to say 37,400 and something pounds off-system.

Would a formula such as that or an allowance such as that be helpful to the shipment of containerized freight?

Mr. KORNEGAY. Yes, sir, that does help, but in some cases, you might have to unload and reload the containers. If it all comes in one large container, then you might have the problem of having to load it in the two smaller containers to meet that load limit.

Mr. COLLINS. I don't think you would have to unload anything or transfer any commodity from different-sized containers but I do know that has helped the trucking industry somewhat in Georgia by changing those tandem weights in the off-interstate system. I think it would be very helpful on the interstate transit system also.

Mr. DeBoer, you mentioned the closing of military bases for possible intermodal yards. Maybe you should talk to the gentleman

from Pennsylvania who is now in court about the Navy shipyard at Philadelphia. You might have an answer to his solution should he fail in court.

Mr. RAHALL. Gentlemen, thank you for your testimony and your patience in being with us.

The subcommittee will now hear from a panel consisting of the following individuals: Ms. Judith Lee Stone, President, The Advocates for Highway and Auto Safety, Washington, DC; The Honorable Nancy Kessel, West Virginia House of Delegates on behalf of The Advocates for Highway and Auto Safety; Ms. Joan Claybrook, President, Public Citizen, Washington, DC, testifying on behalf of Citizens for Reliable and Safe Highways.

I want to welcome especially the Honorable Member of the West Virginia House of Delegates. Nancy, it is very nice to have you with us today. I know the West Virginia legislature is in their final couple of weeks of session and it is a very important time in that body. We particularly are cognizant of the fact you have taken time to be with us today and we appreciate it.

TESTIMONY OF JUDITH LEE STONE, PRESIDENT, ADVOCATES FOR HIGHWAY AND AUTO SAFETY; HON. NANCY KESSEL, WEST VIRGINIA HOUSE OF DELEGATES, ON BEHALF OF ADVOCATES FOR HIGHWAY AND AUTO SAFETY; AND JOAN CLAYBROOK, PRESIDENT, PUBLIC CITIZEN, ON BEHALF OF CITIZENS FOR RELIABLE AND SAFE HIGHWAYS (CRASH) ACCOMPANIED BY GERALD DONALDSON

Ms. STONE. Thank you, Mr. Chairman.

I am Judith Lee Stone, President of Advocates for Highway and Auto Safety. I thank you on behalf of Advocates for conducting this hearing and allowing us to testify.

I ask that my entire statement be inserted in the record and I will be very brief.

We are grateful for our many opportunities to testify before this subcommittee on a variety of safety issues, so today, we thought the best way to bring our message to you was through someone who has seen the benefits of the programs written by this committee. With me today is Nancy Kessel, a Member of the West Virginia House of Delegates. Nancy is truly a safety leader for her dedication in fighting for a safety belt law in her State of West Virginia, Mr. Chairman.

She has personal experience with the success of Section 153 and we wanted her to come here today and talk about that.

Nancy.

[The following was received from Ms. Stone:]

RESPONSES OF JUDITH LEE STONE
PRESIDENT, ADVOCATES FOR HIGHWAY AND AUTO SAFETY
TO QUESTIONS SUBMITTED
DURING MARCH 3, 1994 HEARING

1. a) Virginia and the District of Columbia are the only states which currently maintain a total ban on radar detectors. Are you aware if these jurisdictions have reported accident or fatality rates significantly lower than other states, or point to such a ban as having had any impact on highway safety?

A. Studies of radar detector use show that there is a direct correction between radar detector use and speeding. Speeding is a key factor in motor vehicle deaths and injuries. In the FY 1994 Transportation Appropriations bill, Congress directed the Federal Highway Administration (FHWA) to begin collecting data to determine whether commercial motor vehicles with radar detectors were overrepresented in crashes that involve speeding by operators of commercial motor vehicles. Other studies, cited below, testify to the role speed plays in jeopardizing highway safety as well as the prevalent use of radar detectors in commercial vehicles.

- Speed is a factor in at least one-third of all fatal crashes, according to the National Highway Traffic Safety Administration (NHTSA).

- On 65 mph Interstates, three times as many trucks with radar detectors were traveling at least 10 mph over the speed limit as trucks not using the devices. On 55 mph Interstates, more than twice as many trucks with radar detectors were traveling at least 15 mph over the speed limit. (*Radar Detector Use in Trucks in 17 States*, Insurance Institute for Highway Safety (IIHS), November 1990.)

- At least 52% of all trucks and 50% of trucks carrying hazardous materials were using radar detectors; among tractor-trailers, at least 59% were using radar detectors. (*Radar Detector Use in Trucks in 17 States*, IIHS, November 1990.)

- The percentage of trucks using radar detectors is far greater than the percentage of passenger vehicles using radar detectors. (*Radar Detector Use and Speeds in Maryland and Virginia*, IIHS, May 1990.)

- When tractor-trailers are operated in an unsafe manner, others using the highways are the likely victims. In fatal crashes involving passenger cars and tractor-trailers in 1990, the car occupants were killed **89 times** as often as the truck occupants. Of the 4,061 people who died in tractor-trailer crashes in 1990, **only 12% were truck occupants**. (IIHS)

The issue, then, is eliminating a device that helps big trucks and buses speed. Since speeding trucks are a hazard, I support actions by the FHWA to prohibit activities that allow these vehicles to evade the law and to travel at excessive speeds.

b) Isn't it true that the two tragedies involving trucks on the Washington Beltway which provided a lot of the momentum for FHWA to move to a final rule banning radar detectors occurred in Virginia, a state which already had a ban in place?

In July 1990, eight national organizations (American Automobile Association, American Trucking Associations, Insurance Institute for Highway Safety, International Assn. of Chiefs of Police, National

Association of Governors' Highway Safety Representatives, National Safety Council, Public Citizen, and Advocates) petitioned the FHWA to initiate rulemaking on radar detector use in commercial vehicles. During the comment period, thousands of comments were sent to the docket in support of the rule, including 73 state agencies representing 43 states, hundreds of police chiefs, thousands of individual law enforcement officers, and thousands of doctors, nurses, business people and ordinary citizens, in addition to many in the trucking industry. Opposition was limited primarily to some truckers and to radar detector manufacturers. The petition for this ban was filed in 1990, and the docket on this rulemaking closed in 1992, thus making the case for the ban long before the cited crashes occurred.

The tragic truck crashes on the Beltway focused the attention of national policy makers on the importance of truck safety, but this rule was already underway in the agency and these many comments were under review.

2. I share your deep concern for highway safety. In fact, I and every member of this Subcommittee are as concerned about highway safety as you and the organization you represent. But, I don't believe we should refuse to consider a technology or a use of a technology which could provide measurable highway safety benefits. Are you aware of impartial studies on the safety-enhancing use of this technology have been performed? If so, could you please provide it for the record?

I am not aware of any scientific, impartial and independent studies that indicate certain microwave technologies could provide "measurable highway safety benefits." I am aware that the IVHS plan includes proposals on crash avoidance technologies which our organization greatly supports to improve highway safety.

The concept that radar detectors can provide safety benefits seems based on the premise that every highway user must first purchase a detector to gain whatever advantage radar detector manufacturers claim this technology might provide -- a handy windfall for the manufacturers, which I believe should be responsible for investing in the development of new technologies and not the public.

Additionally, it is illogical to take an expensive device, that currently has no other use than evading the law, and then decide to invest scarce public resources to seek a potential "safety benefit" so that everyone would have to buy this device. Then, every vehicle will be equipped with an item that encourages people to believe they can evade the law. It is especially illogical to use gas tax dollars to develop and promote this effort when there are other important highway safety needs.

In the same manner, for example, if one could buy a device permitting a driver to evade an alcohol breath test, hopefully elected officials and the public would oppose a government-financed study of potential safety benefits of this technology and not encourage getting the device into the hands of all drivers, including those who are intoxicated.

Advocates sees no need for such government-financed efforts. If radar detector manufacturers want to pursue such a vague potential benefit they are free to do so. However, it is unacceptable to use tax dollars to conduct such studies. Manufacturers who are making the claims should foot the bill, not taxpayers.

I believe there are better uses for our research dollars on behalf of other potential and genuine safety enhancements.

3. a) The same day the FHWA announced its ban on radar detectors in trucks, it also announced a series of recommendations to enhance safety on the Washington Beltway. Among them was a recommendation that "drone" or stationary radar transmitters be used as part of a program to enhance safety on this highway. Do you support this recommendation?

No. Advocates did not make that recommendation and does not believe such a step is the best use of resources to lead to improved safety on the Beltway.

I understand the theoretical use of drone radar -- to trigger radar detectors -- as long as radar detectors are in widespread use. Drone radar would be unnecessary if people did not use radar detectors to evade law enforcement.

In the thousands of comments from law enforcement agencies and officials to FHWA, I am unaware of any mention of drone radar use nor of any statement that the proposed radar detector ban would interfere with such activities. Undoubtedly state and local law enforcement personnel would have raised this issue if that was indeed the case.

The only claims of widespread use of drone radar by police agencies have originated from radar detector manufacturers, not from police agencies.

Law enforcement agencies would almost certainly prefer a halt to radar detector use instead of expanding the use of drone radar, based on the policies of law enforcement organizations and informal comments by police officers.

b) What is the harm of conducting a detailed, impartial study of the way in which the installed base of some twenty million radar detectors might be used to enhance highway safety, especially near work zones, which is another area of concern as expressed in your statement?

As mentioned in my answer to question 2, there is no justification for public expenditures to expand the market for a private, for-profit industry.

I believe many effective steps can be taken to address work zone safety problems. Work zone safety will be enhanced by many steps, including better alignment and delineation of the temporary travel path, better enforcement, and better maintenance and inspection programs, not by the use of drone radar. Expanding the use of radar detectors would decrease, not increase, the safety of highway workers and families traveling through highway construction sites.

4. I presume you and your organization have opposed the use of radar detectors for some time, is that correct? In all types of highway transportation, not just commercial motor vehicles, is that correct? Do you base your position on the effectiveness of existing bans?

Advocates and many other health, law enforcement, insurance and highway safety organizations are concerned about the serious problem of speeding on our roads and the growing perception that excessive speed is not a serious safety issue. We believe encouraging the sale of devices that allow people to speed and evade speed laws, thereby fueling the perception that speed limits need not be obeyed, is one reason speed is second only to alcohol as a leading factor in fatal motor vehicle crashes.

Ms. KESSEL. I am honored to be here to talk about a unique Federal program that works and is sensitive to State concerns, Section 153 of the Intermodal Surface Transportation Efficiency Act of 1991, ISTEA.

I am currently serving my second term in the West Virginia House of Delegates. We have been through a 10-year long struggle enacting a safety belt use law in our State but last year, following the enactment of ISTEA, we finally succeeded and West Virginia's law became effective September 1, 1993.

My personal involvement with this issue began several years prior to my election in 1990. I am a registered nurse with experience in both critical care and emergency room nursing. My strong conviction that Government should play a role in encouraging the public to use safety belts in order to reduce injury and death from motor vehicle accidents led me to become active as a citizen lobbyist.

During these frustrating years, I was involved in an accident in which the car I was driving was forced off a rain-slick highway, crashed into trees and fell over a 70-foot embankment into a rain swollen river. The car was submerged but the safety belt saved me from serious injury and allowed me to be oriented enough to unbuckle and locate a window through which I escaped. So I am here before you today perhaps most importantly as one of a growing number of Americans who owe their lives to the use of safety belts.

In spite of my professional background in health care and personal experiences and knowledge that such a law would save lives and prevent injuries and save taxpayer dollars, my efforts and those of many other West Virginians were not successful for many years in convincing State officials to move forward. Finally, today, West Virginia has a safety belt use law.

Would we have acted without Section 153? I believe that Section 153 made the difference in finally making it happen. Section 153 is effective.

One problem we faced was a political one. There was a group of officeholders who had once opposed a safety belt law. As time passed, legislators privately confided that they saw the merits of the law but had a hard time publicly announcing their change of position. Section 153 gave them political cover to be able to vote for the safety belt law. They grumbled a bit publicly about Federal pressure, but privately, they were relieved that Section 153 allowed them to do what they knew was right.

Section 153 did this without Federal mandates and sanctions, that we at the State level find so frustratingly common. As a State official, I can proudly say this is a Federal approach that States can work with to achieve the national goal of adopting safety belt and all-rider motorcycle helmet use laws in all 50 States. I applaud the skill with which Section 153 was drafted.

States which may choose not to enact either safety belt or helmet laws should be required, at a minimum, to provide public education to encourage their use. While most States have already found that education alone does not adequately increase belt and helmet use, it is most important that the redirection provisions of Section 153 and the education requirement be left in place.

Mr. Chairman and members of the committee, don't stop a Federal program that is working and that States can accept. In a time when health care reform is at the top of the agenda, please don't change a program that saves lives and tax dollars. That would be a travesty.

Thank you, Mr. Chairman.

Mr. RAHALL. Joan, do you have a statement?

Ms. CLAYBROOK. Yes, I do.

Thank you very much, Mr. Chairman.

With me is Gerald Donaldson of Advocates for Highway and Auto Safety and he is my co-chair with CRASH, Citizens for Reliable and Safe Highways. I would like to have our full testimony submitted for the record.

Our testimony today will focus on America's highways and making them safer for motorists by curbing the spread of dangerously overweight and overlength trucks. This can be done by capping the length of trailers at 53 feet and the weight of trucks at 80,000 pounds.

The proposed National Highway System will require the expenditure of billions of dollars of Federal funds each year and the trucking industry will be one of the principal beneficiaries of these public expenditures, as Mr. Donohue and other officials made clear in their testimony today.

Since trucks are a primary cause of damage on our highways and bridges, is it too much to ask that large trucks be subject to reasonable limits on the vehicle sizes and weights? We have a chart to show you here which illustrates the increase in the size of these trailer lengths over the years as you can you see. Of course our highways don't adjust as rapidly as these trucks grow. I would like also to point out that large trucks are beating our road pavements and bridges to pieces.

Chairman Mineta mentioned a bit earlier today about one of our highways in Washington here, Route 395, and the problem with it being beaten up and the difficulty that cars have traveling on that highway. Obviously, the highways do deteriorate when you have these extra large vehicles traveling on them.

The percentage of bridges, for example, that need repair or replacement in the last decade has grown. Hundreds of the most important bridges off the interstate system that will become part of the NHS have suffered increased deterioration from extra heavy giant trucks pulling loads that are not legal on the interstate system. All road users have to pay the tab for the trucking industry smashing our roads and bridges at an increasing rate.

The new National Highway System routes will become highways of national significance. If we don't uniformly control the weight of trucks on these roads and bridges, the dramatic increases in truck traffic that they will experience when the NHS is approved by Congress will waste the investment of billions of dollars in very short order.

Our existing total backlog of highway and bridge deficiencies is estimated by the Federal Government at $212 billion and the Department of Transportation says it would take $60 billion a year to improve our roads and bridges above minimum acceptable standards. The total capital spending for highways and bridges would

need to increase by $35 billion each year just to improve the conditions and performance from a baseline 1991 assessment.

The cost of keeping pace with deterioration much less gaining on it keeps growing every year and in fact, the figure for each recent year is always billions more than the figure for the preceding year. As the Federal Highway Administration said in its report to Congress last year, this is due to "deterioration and overall average system performance." A major part of that deterioration is the pummeling that the roads and bridges take from overweight giant tractor trailers.

Why should we let this national system to be paid for mostly by Federal funds and gasoline taxes go to pieces earlier than necessary by overweight trucks who are underpaying their fair share for using the National Highway System? We should get the benefit of supporting this system by extending the amount of time between major pavement rehabilitation and bridge renovation and we will only be able to extend that time period if we limit the size and weight of these vehicles. It is time to get some uniformity of truck weight limits on the noninterstate portion of the highway system that you are now authorizing. The best way to do this is to extend the reach of the Federal interstate weight requirements to the NHS.

Highway damage is not the only byproduct of the extra long and heavy trucks. Safety is also at risk. Far too many motorists are killed and injured each year in truck crashes. In 1992, the most recent year for which figures are available, over 4400 men, women and children were killed in truck crashes and another 100,000 Americans are injured annually.

For motorists, trucks remain one of the most serious highway hazards we face, although trucks make up only 3 percent of vehicles on our Nation's roads and highways and 12 percent of the traffic on the interstate highways. They are involved in 38 percent of the motorist fatalities and crashes involving more than one vehicle.

An important factor in the overinvolvement of trucks is the growing disparity in size and weight between big trucks and passenger automobiles. As cars have gotten smaller and more fuel efficient and lighter, the trucking industry has pressed for heavier and bigger trucks. In addition, our existing highways are simply not designed to accommodate these larger vehicles.

The trucking industry over the years has successfully exploited the ambiguities in the weight and length laws. They have pushed for higher weights, then for longer lengths to accommodate the higher weights and it goes on and on.

As matters now stand, Federal weight and length limits that would apply to the National Highway System really make no sense at all. Despite the evidence that longer trucks are more dangerous, we have no Federal maximum length limit. Instead, we have a minimum length in our Federal laws for trucks. Despite the overwhelming evidence that heavier trucks are more dangerous, we now allow the heaviest trucks to operate on the least safe, noninterstate highways. The weight limits we now have on those non-interstates are often ineffective. Since 1982, many States have been able to simply avoid the current Federal weight laws by claiming grandfather rights. The Federal Highway Administration,

for twelve years, has been powerless to enforce the laws that we have. Even where there is no evidence to support the State's claim of grandfather rights, the Federal Highway Administration is not allowed to evaluate such claims.

At the request of the trucking industry, the Federal weight limits include an exception for nondivisible loads which makes sense, but unfortunately, the exception has been exploited and divisible loads are frequently carried as nondivisible loads.

The consequence of this situation is a deadly mix of longer and heavier trucks on the highway with smaller and lighter automobiles. You can see from our chart what used to be the ratio between trucks and cars has now become far more exaggerated. We compare here 1946 to 1994. You have some trailers that now are at 60 feet and we compare this with a 1994 Honda Accord compared to the 25 foot trailer length in 1946 with a Buick that was much larger than our average car today.

Unless Congress acts now, the situation will get worse. The American Trucking Association has already endorsed a move to an 88,000-pound weight limit as part of the NAFTA harmonization negotiations and no fewer than 11 States have already considered legislation sponsored by that industry to increase their lengths.

Over the past 50 years, as I have shown, there has been a dangerous change in that ratio. We think that has to be changed.

I would like to mention the next chart will show that the fatal crash rate for loaded tractor, semitrailers increases as the weight of these vehicles increases. You can see that heavier trucks are in fact more dangerous and it is substantially documented that the involvement rate for trucks between 65,000 to 80,000 pounds is more than twice as high as the rate for trucks weighing 35,000 to 55,000 pounds.

There are a number of factors which make this the case. First of all, the heavier trucks are more likely to roll over. Researchers at the University of Michigan have concluded that the 1974 Federal law which increased the weight from 73,000 to 80,000 pounds resulted in a 44 percent increase in the rollover rate. An increase of less than 7,000 pounds here results in quite a significant increase in rollovers. More recent research shows that increasing this weight to 88,000 pounds will also increase rollovers.

Second, heavier trucks are more likely to be involved in runaway type crashes on steep, downhill grades. If you talk to truck drivers, I'm sure that they will tell you what they have told us on many occasions. We have found that one out of every four drivers has lost their brakes at least once during their driving career. In heavier trucks, this is a very serious issue.

Third, the weight means that for many trucks it will take longer for the truck to come to a stop after the brakes are applied. The rates of fatal crashes in which semitractor trailers crashed into the rear ends of vehicles is consistently higher for more heavily-loaded trucks than the lightly-loaded ones. In addition, trucks designed to carry heavier loads have more jacknife crashes traveling empty than do trucks designed for lighter loads. Heavier trucks are incompatible with other traffic, they move more slowly on upgrades. These slower speeds are very dangerous and other hazards are created on these slow, upgrades on two-lane highways and cause a

much higher percentage of illegal passing maneuvers by the trailing passenger cars.

One study has shown that trucks travelling 15 miles below the prevailing speed of other vehicles have crash involvement rates nine times higher than those that travel at the same speed as other traffic. Because of their length and slow acceleration rates, longer and heavier trucks take more time and distance to merge into freeway traffic.

There is no question that these heavier trucks cause more crashes. It is essential that the Federal 80,000-pound limit be applied to the NHS.

I'd also like to mention the next chart. It shows briefly that when you have the longer vehicles, they don't stay in their lane of traffic and their tail ends swing out into the other lanes. You can see that with this one graph. My testimony goes into that in much more detail.

In conclusion, we have four proposals for this legislation. First, extend the current Federal 80,000-pound gross vehicle weight and axle limits to the entire NHS. Second, cap the length of trailers used on the National Highway System at 53 feet which is the length of most trailers at their maximum today but not all. Third, to repeal the Symms Amendment which takes away the authority of the Department of Transportation to review the State claims for grandfather rights. Fourth, revise the definition of nondivisible loads to prevent this exception to load overweight trucks with commodities and containers that clearly can be divided.

We thank you for the opportunity to testify today, Mr. Chairman. We'd be pleased to answer any questions.

[The questions and responses follow:]

Questions for the Record
National Highway System Hearing
March 3, 1994

1. Is *CRASH* proposing to rollback trailer lengths to 53 feet and truck weights to 80,000 pounds on the NHS or is your proposal to freeze current dimensions? Is this on a route-by-route basis or state-by-state?

CRASH favors a freeze on trailer lengths with a cap for new trailers at a maximum of 53 feet in length. Current trailers in excess of 53 feet will continue their service lives until they are discarded, but cannot be replaced in kind. For weights, we support an 80,000 pound gross, 20,000 pound single-axle, 34,000 tandem-axle maximum limit for all routes deemed by the Secretary of the U.S. Department of Transportation as part of the NHS in each state. In addition, ***CRASH*** regards reform of current permitting practices, in accordance with the direction of Congress in the 1991 Intermodal Surface Transportation Efficiency Act, to constitute an essential part of controlling weight limits on the NHS for safety enhancement and protection of the federal and state NHS investment. This includes curtailing uncontrolled multiple trip permits and nondivisible load permits for nominally divisible loads and sealed international intermodal containers, among other reforms.

2. One of the studies cited in your report calculates the negative impact of a weight rollback to 80,000 pounds. According to Transportation Research Board study 225 (your footnote number 6), since the freight would still have to move, it would be forced into more, smaller trucks. According to the TRB, this increased truck exposure would mean an increase in annual fatalities of 350 people and 20,200 more injuries (from TRB Table B-4). It would increase annual transportation costs by $7.76 billion dollars (from TRB table 8-1). You did not include these negative impacts in your testimony. Do you agree with the TRB?

The conclusions of TRB Special Report 225 depend entirely on a wide variety of very carefully drawn premises. In the main, the study was an exercise in justifying departure from the current Interstate 80,000 pound gross weight cap by considering the pavement damage and accident effects of allowing the current Bridge Formula B or alternative bridge formulas, most of them generated by the Texas Transportation Institute in the 1980s, to govern maximum gross weight. An alternative scenario of Report 225 was the substitution of more, lighter axles in order to justify higher

gross truck payloads while purportedly reducing the pavement damage that is induced by higher axle loads.

CRASH and other transportation safety groups strongly disagree with both the assumptions and the inferences of Report 225. For one thing, the study selectively reviews the effects of higher weights on crash producing mechanisms and makes accident-reduction arguments that are consistently anchored by an appeal to a new trailer design which does not exist and has never been built and tested: the "Turner Truck."

When one departs from the constraints of the premises used in the study's analysis and moves beyond the selective use of accident studies, a very different picture emerges on the relationship between gross weight and crash production by large combination trucks.

For example, even a conservative analysis of the effects of higher gross weights beyond 80,000 pounds carried by existing configurations, especially a standard "18-wheeler," shows that, ceteris paribus, higher gross weights beyond 80,000 pounds produce higher crash rates under many operating conditions because a truck-trailer combination rapidly increases its rollover threshold at weights significantly above 80,000 pounds. This analysis was performed by Paul Fancher at the University of Michigan Transportation Research Institute in 1989 and can be regarded as a very conservative review of the implications of gross vehicle weights greater than 80,000 pounds.

This analysis, however, has been preceded by a number of other investigative efforts that show the same results. For example, Glenn G. Parsons of the National Highway Traffic Safety Administration in 1976 demonstrated the linear relationship of increases in truck loaded weights with the death rates for persons other than the truck occupants in car-truck crashes. The rate of fatalities in the cars consistently rise as gross vehicle weights move above 80,000 pounds.

Next, it should be understood that gross vehicle weights higher than 80,000 pounds usually involve combination truck operation on better, safer roads than trucks with lower gross weights which often operate on a higher percentage of lower class facilities. In fact, in many states certain permitted weights in excess of the states' gross and/or axle limits are confined to highways with superior geometry and accompanying safety features. When one controls for highway type, higher gross weights (above 80,000 pounds) are disfavored repeatedly with higher crash rates and severity.

Moreover, the effects of tonnage displacement into more and smaller constituent truckloads are greatly exaggerated if one inspects the conclusions of TRB Report 225 without a precise

understanding of the numerous assumptions governing the analysis. For example, a fact that should be brought to the committee's attention is that more than 99 percent of all combination trucks on the road at any given time are running either partially laden or even empty. Even when trailer capacity is reached, this almost always involves a "cubed out" vehicle that does not exceed a given state's gross and/or axle weights.

In addition, the tendency of trucking firms in recent years has been to increase the use of truck-trailer configurations for gross weights exceeding 80,000 pounds which ***CRASH*** and other transportation safety groups maintain are much more dangerous. These not only include the obvious Longer Combination Vehicles (i.e., Rocky Mountain Doubles, Turnpike Doubles, Triples), but even short or "Western" doubles with two short 28-foot long "pup" trailers.

Once again, we disagree with the findings of yet another TRB study, its earlier investigation of Twin Trailers, Special Report No. 211. This report is another instance of choosing "best case" assumptions, many of which were strongly challenged at the time of publication, to "prove" that twin trailers are just as safe as standard semi-trailer combinations. They are not.

Lastly, we would like to draw the committee's attention to the transportation philosophy underlying the NHS. As indicated over the past several weeks by U.S. Department of Transportation Secretary Federico Peña, the concept of the NHS is only viable within the broader context of a national intermodal transportation system. The 1991 ISTEA comprises a mandate for the reform of our nation's transportation policies. The two overarching goals of the legislation are the increased protection of our environment through improvements in air quality and the redress of chronic imbalances in our transportation system which excessively favor the movement of people and goods predominantly by highway.

It is clear from both ISTEA and the initiatives of the U.S. Department of Transportation that the NHS cannot simply take existing freight movement as a given which will be further subsidized by the expansion of a nationwide system of priority commercial routes beyond the current Interstate system. The twin evils of congestion, and accompanying air pollution, and excessive highway losses will continue unabated if the NHS is regarded as only a bigger and better extension of the Interstate highway network. ***CRASH*** believes that both freight and people must be moved through the use of other modes than highways and that a reduction in overall highway freight tonnage through both diversion to other systems of freight handling and a reduction in the number of trucks, as well as the weight of those trucks, will have a salutary effect on our infrastructure investment, particularly the NHS, and reduce deaths and injuries due to truck crashes. The NHS should not be the occasion for accepting the status quo of current surface transportation freight movement, but instead a major

opportunity to evaluate its commercial purposes in light of the need to improve the contribution of other transportation modes, enhance the health of our environment, and reduce deaths and injuries due to truck crashes.

3. In your testimony, you say that "it is well known that when the percentage of trucks in traffic exceeds 10%, severe crashes rise disproportionately." (Claybrook draft testimony, p.12) Ken Campbell of the Michigan Transportation Research Institute, who is cited for authority for many of your statements, is unaware of this "fact." What is the source for your statement and when was the analysis done?

In response to this question, I am including a copy of a recent study conducted by Kittelson and Associates, Inc., of Portland, Oregon, which reflects the extraordinary accident overinvolvement rate of heavy trucks on Utah U.S. Route 189. As truck volumes have grown over the years on this facility to constitute a major part of the traffic stream, crash involvements and their severity have commensurately grown. Kittelson and Associates apparently has the retrospective data to show this trend.

The crash rate for heavy trucks on U.S. 189 is between eight to ten accidents per million miles of travel, one-third of <u>all</u> accidents result in someone being injured (an extraordinarily high rate), and fully one-half of the truck crashes involved the commercial vehicle suffering rollover. The Kittelson and Associates study is the end result of a number of evaluations conducted over the years by both the private and public sectors.

I also am enclosing similar studies showing the crash overinvolvement effects of trucks on two U.S. routes in a nearby state which impelled its highway department to institute truck restrictions that dramatically reduced both truck traffic percentages and truck crashes. I have been provided these studies by the state's traffic engineer on condition that I ask the Committee on Public Works and Transportation to protect the identity of the state. We ask your serious consideration of this request.

These studies are individual evaluations of specific highways that have been adversely impacted by truck crashes with levels of death and injury that far outstrip the percentage representation of commercial vehicles in the traffic stream. There are many more examples of highways throughout the U.S. that have experienced this kind of severe overrepresentation of truck crash experience.

Mr. RAHALL. Thank all three of you for your testimony today.

Nancy, let me ask you one quick question about the record of enforcement of our seatbelt law in West Virginia. Do you know if there have been problems with that enforcement?

Ms. KESSELL. No. Actually, we have achieved over a 70 percent seatbelt use rate since September of last year. We were at 40 percent with education efforts alone, so we're pleased. We have a secondary enforcement law and we don't have the final data yet on the first year because we're only halfway into it.

Mr. RAHALL. Are there efforts to change this law in any way? I know that now you cannot be stopped for just a seatbelt violation. Is that accurate?

Ms. KESSELL. That's correct. It is a secondary enforcement law. States which have primary enforcement laws achieve higher rates of belt use but because of the choice argument, West Virginia did go with a secondary enforcement law and still has been able to achieve that rate of belt use.

Mr. RAHALL. Thank you.

The Chair will recognize the full committee Chair, Mr. Mineta.

The CHAIR. Let me thank the panel for being before us today. I'd just like to ask Ms. Stone as to what elements you or Advocates believes should go into an effective work zone safety program?

Ms. STONE. We would like to see the rulemaking come out of the Department of Transportation on a plan for work zone safety. Obviously, there are a lot of things that need to be done. I, if you don't mind, would defer to Mr. Donaldson who happens to be on my staff on this issue because he is really the expert on work zone safety but we do feel that requirement under ISTEA needs to be met by the Department and has not yet been met. We'd like to see a plan, especially as the NHS comes into play because there will be so much more construction.

The CHAIR. That was the preface or the reason for putting it in ISTEA to begin with because of the increase, hopefully, of expenditures. This year, I'm hoping that we will have full funding in terms of the ISTEA programs.

Ms. STONE. Yes, we need to get going on it.

Mr. DONALDSON. I don't need to add a lot, Mr. Chairman. Certainly with the prospect of a National Highway System, we're going to have America building in an unprecedented way because even without adding new lane capacity, we're going to take lots of minor facilities and upgrade them by improving lane width, shoulder width and we're going to get more capacity. It is going to attract more traffic volume and that means we're going to have a lot of construction workers out there and a lot more traffic through those facilities.

One of the things we need desperately is an accurate handle on exactly what kind of countermeasures to implement. We don't have that and have never had that. I say that advisedly because I basically drafted most of the content of the existing rule in the Code of Federal Regulations in 1977 pursuant to litigation. Our data collection system for work zone safety is horrendously poor. We don't know at any given time how many miles are actually under construction, we don't know how long the sites last, we don't have accurate traffic counts. We don't know anything which has to do with

an accurate measure of exposure. So when we make statements like "this year it is worse than it was before" or "this year we have fewer deaths than we did the previous year," the problem is we really don't know whether we are doing things better or worse than we were before. We usually do business as usual and I know what that business is intimately, but we never know how to change a losing game and part of that game out there is a losing game.

The CHAIR. Thank you very much.

Mr. RAHALL. The gentleman from Wisconsin, Mr. Petri?

Mr. PETRI. You've been patient and we have a number of other panels as well so in the interest of time, I will, with the Chair's submission, submit a series of questions to you for response at your leisure after this hearing. I do have one or two questions based on your written testimony that people who looked this over were trying to track down.

Ms. Claybrook and Ms. Stone both indicated that it is a well known fact that when trucks exceed 10 percent of overall traffic, severe crashes rise proportionately. I wonder if you could direct or refer us to the source or the study or the basis of this assertion so we can attempt to familiarize ourselves with the methodology or the validity of the claim?

Mr. DONALDSON. The studies that show that, Mr. Petri, are so long that they would run off this table if we brought them in. It's become a rule of thumb. The traffic engineers and highway designers use a 10 percent break point for truck volume and you have to do different things in your engineering both in terms of highway cross-section design alignment and traffic engineering etc. to start coping with the overinvolvement which is sure to occur if you have trucks exceed 10 percent of your volume.

Some of the areas in our own region such as I–81 running down in Virginia has as much as 20 to 25 percent truck volume. It has commensurate overinvolvement rates of trucks. That is very typical. We'd be more than happy to provide numerous studies over the past couple of decades and more to verify that for you.

Mr. PETRI. Just the leading ones would be fine.

Mr. DONALDSON. Certainly. Not the whole of this table length.

Mr. PETRI. If it is sort of folklore wisdom in the trade, great, but we'd still like to know if it is valid wisdom or if it is just conventional wisdom, how that ratio was derived or what it really amounts to.

Also, in that connection, Ms. Claybrook, your testimony indicated that the NHS could experience a doubling or tripling of truck traffic on the system. Do you expect this would largely be the result of diversion of traffic to the system from other roads and therefore, we would be relieved of that traffic or would it be due to greater economic growth that would result from the system that will hopefully result in more jobs and higher standards of living for a lot of people in this country?

Ms. CLAYBROOK. I think it will be both, that you will have some diversion clearly for good reason. It is advantageous for efficiency reasons to drive on a better highway system and in addition, it will encourage the growth of truck traffic. If you listened to Mr. Donohue's testimony, he mentioned today that he felt just the NAFTA alone would increase the number of border crossings from

1 million to 6 million. So when you put that into the mix as well, the increased traffic just from that, it is clear there is going to be more traffic with the NHS—on that system.

Mr. PETRI. Thank you.

Ms. CLAYBROOK. We'd be pleased to answer any questions you have and supply footnotes for our testimony if that would be helpful to the committee. We have taken a great deal of effort to document all of the statements we made and we hope the committee will take a hard look at the safety issues that we have raised and also the issues of the degradation of the highway because that is a critical factor in terms of the cost to the public as well as to the driving public, as well as the people who pay gasoline taxes to keep these highways up to date.

I know it is hard to get money these days for all of us, for all the programs we care about. It does seem to me that we all have to make some compromises in order to do that. So we hope you will consider these issues. One of the statements the Department of Transportation made recently was that only half the interstate exchanges can accommodate a tractor-trailer that is 48 feet long. I think that is an indicator of the problems we're going to face as you get these vehicles longer and heavier.

Mr. PETRI. Do you have any reaction to or analysis of some of the concerns that our colleague Mr. Beilenson had about degradation of highways, and trying to build quality in at the outset. His idea was to try to do what he felt they did in some European countries of having contractor warranty of their work. Others say that may not actually be appropriate because of differences in the way our road construction program works in the United States and the difference in the structure of our contracting industry as opposed to Europe.

Nonetheless, his basic point is that if we can build quality in, it will pay for itself several times over. I guess a lot of us do feel it was important for a variety of reasons to go ahead and get the System in place, but now that it is in place, the question becomes whether if there are some changes that might be appropriate in order to cut down on repeat maintenance and get it done better.

Ms. CLAYBROOK. We do believe there are things that can be done. We'd be pleased to submit for the record and send to you personally some of our thoughts and ideas. We believe in prevention.

[The following was received from Ms. Claybrook:]

GOVERNMENT PURCHASING PROJECT
P.O. BOX 19367
WASHINGTON, D.C. 20036

(202) 387-8030

PERFORMANCE-SPECIFICATION PAVEMENT

PROPOSAL

Congress shall provide the means for five states to undertake rental of a Performance Specification Pavement (PSP). PSP has superior riding quality and safety, and costs the taxpayer less than conventional pavement.

At present the states pay a contractor to pave a road and other contractors to repair it when needed. This proposal provides for a state to pay a contractor monthly a fee or rent for each axle-mile of use of a pavement as long as the pavement meets the rideability specification of the original bid document.

When the contractor must close the road for repairs, rental payments are eliminated and a penalties applied against future rents. Lane closings occurring during heavy-use hours are penalized more heavily than lane closings occurring at night. All of these terms motivate the contractor to use the best possible pavement to minimize repairs and maximize rental payments.

All other aspects of highway work remain unaffected by this proposal or the use of PSP.

CONGRESSIONAL INTEREST

Congressional interest in the concept of Rental of PSP shall consist of an appropriation to the United States Department of Transportation to make awards to five state Departments of Transportation. The awards will be made equally for each of five demonstration projects proposed by five states as judged by FHWA to be best demonstration of the rental concept. A suggested amount of appropriation is $500,000. These funds are used to encourage the states to participate in the program. Administrative cost for this program should be minimal.

CONGRESSIONAL INTEREST - continued

Congress shall receive annual reports for five years from the DOT to insure that the Federal Highway Administration completes awarding 50% of the funds of the funds within one year to the states that submit within nine months the five best proposals and that rental of PSP be under contract on five projects within two years. The reports will also detail the experience of each state with PSP.

PERFORMANCE SPECIFICATION PAVEMENT

Procurement of PSP involves the issuance by state highway organizations of contract documents that set forth only the following criteria for the pavement being procured:

The location, width, and length of the pavement to be furnished and maintained by the contractor.

The estimated traffic count and weight which will use the pavement.

The formula to be used for the pavement rental payments, including penalty and bonus payments.

THE RENTAL CONCEPT

The rental of pavement is the only known means of insuring the procurement and installation of quality pavement in the U.S.A. highway system. The criteria that the taxpayer and the vehicle operator wish to use is smoothness which can be set forth by a rideablity number that is measured regularly by the state highway personnel with existing instrumentation. Sufficiently high friction between tire and pavement is inherent in the use of any affordable material the contractor may choose. All other selections are made by the contractor.

The bid documents will specify that the pavement is owned by the state from the day first put in service. The supplying contractor owns an enforceable contract that insures payments. If the pavement remains deficient in rideability for 30 days after the state notifies the contractor, the contract is canceled. From that contract cancellation date, the state manages the pavement exactly as the state does at present or the state solicits a new rental contract. Such a new contract would very likely have much lower axle-mile rental payments because of the take-over of the previous installation.

GOVERNMENT PURCHASING PROJECT
P.O. BOX 19367
WASHINGTON, D.C. 20036
(202) 387-8030

PERFORMANCE-SPECIFICATION PAVEMENT

Proposal: Feasibility study on the use of "performance-specification contracts" in the procurement of highway pavement.

Under performance specification contracts, the pavement contractor guarantees the quality of the road surface for a specified period of time. If repairs are needed, the company does them at its expense. The contractor may be paid over time, or a portion of the pavement may be kept by the government as insurance against faulty work. If the pavement is in good condition for the guaranteed length of time, the contractor receives full payment. Performance specification pavement contracts stimulate innovation and provide better pavement because it is in the company's best interests to provide better pavement.

A September, 1990 Federal Highway Administration-sponsored tour of Europe found that European highways last longer than ours, handle heavier loads and are in much better condition. The participants of the tour, including representatives from the U.S. Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials and the National Asphalt Pavement Association, studied roads in

Great Britain, Germany, Denmark, Sweden and Italy.

Perhaps the most significant aspect of the group's findings was the use of guarantees which require that contractors replace or repair faulty roads if problems develop within a specified number of years after installation.

In the United States, contractors build the roads to government specifications; the contracts specify that once the road is accepted by the government as completed, the taxpayers must assume all responsibility for paying for repairs. There is no incentive to build a better pavement. As the FHWA European tour demonstrated, current U.S. practice fosters the use of outdated inferior methods and pavement mixes, even though there have been better options available to contractors and engineers for years which produce improved pavement and road conditions.

The proposed study would examine current American practices of road construction from development of specifications through the awarding of the contract, as well as road use and repair records compared to the same experience for comparable European roads. The study would also detail options for overcoming the barriers to adopting the performance-specification method, which include research and development requirements, equipment needs and pavement composition.

DENTON CONSTRUCTION COMPANY
20415 MACK AVENUE · GROSSE POINTE WOODS, MICH 48236-1685
AREA CODE 313 884-5530
CONCRETE ROADS

January 15, 1990

Mr. Frank Carlile
Florida Department of Transportation
Haydon Burns Building
605 Suwannee Street
Tallahassee, FL 32301-8064

Dear Mr. Carlile:

I understand that Mr. Fredrick Lang recently met with you to discuss renting or leasing pavement surfaces to the State of Florida. I prefer to think of this as Pay for Performance Specification Pavement. We believe that the Pay for Performance Specification Pavement concept is an innovative approach which will encourage better quality pavements, promote pavement innovation, and lower costs to the public. Since the State will only pay for performance; innovation on construction, design and maintenance can be had without risk to the State.

Our company is prequalified with the Florida Department of Transportation, and we currently have approximately $100,000,000.00 worth of work under way at the Orlando Airport. We are extremely interested in this concept, and would like to bid on such a project. If we can be of assistance in developing this concept with you, please let us know. If you think that the concept is without merit, I would also like to know why.

Yours truly,

DENTON CONSTRUCTION COMPANY

Leet E. Denton
President

/dj

Mr. DONALDSON. I would like to second your remarks, Mr. Petri because having been in the area of highways and highway safety for some years now, I can look back and see how we had many highways out there with theoretical 20-year design lives to the pavement and they are asphalt and Portland cement concrete experts here waiting in the audience to talk to you. They can tell you as well as I and better that we had those pavements end up with 5-year and 7-year, 9-year and 12-year lives instead of 20-year lives.

We had the comment that we wanted to build a 40-year design life into our pavement. We can't do that if we have the kind of schizophrenic approach that NHS would have right now. We have interstate design standards governing one-third of the system, but we have State discretion governing the remaining 110,000 miles. You will not get 40-year design lives on those non-interstate roads. You will be lucky if you get 10 or 15 year design lives, particularly when the sun rises tomorrow over Kanawha Valley, we are going to see one of those minor arterials there that has 7,000 vehicles a day and in very short order, just by widening lanes and shoulders, that is going to become a facility with 20,000 vehicles a day and probably triple or quadruple the truck volume.

If we don't want to beat that pavement to pieces, we're going to have to do two basic things. We're going to have to control the quality of the prevent designs we use on these facilities and we're going to have to control the weights of the axles and the gross loads that travel those facilities.

Mr. RAHALL. Thank you very much for your testimony and your patience in meeting with us all day as you have.

Our next panel, Mr. James J. McLary, President, Washington Private Operators Council, Arlington, VA; Mr. Kyle Martin, President, Mayflower Contract Services, Inc., Shawnee Mission, KS on behalf of the American Transit Services Council, Washington, DC; Mr. Alfred LaGasse, Executive Vice President, International Taxicab and Livery Association, Kensington, MD; and Ms. Susan Perry, Vice President, Government Affairs, American Bus Association, Washington, DC.

We have your prepared testimony. You may proceed.

TESTIMONY OF SUSAN PERRY, VICE PRESIDENT, GOVERNMENT AFFAIRS, AMERICAN BUS ASSOCIATION; ALFRED LaGASSE, EXECUTIVE VICE PRESIDENT, INTERNATIONAL TAXICAB AND LIVERY ASSOCIATION; JAMES J. McLARY, PRESIDENT, WASHINGTON PRIVATE OPERATORS COUNCIL; AND KYLE MARTIN, PRESIDENT, MAYFLOWER CONTRACT SERVICES, INC. ON BEHALF OF THE AMERICAN TRANSIT SERVICES COUNCIL

Ms. PERRY. Mr. Martin it looks like is not here at the moment. We understand he's coming from the midwest someplace. I'm not sure where he might have ended up but the three of us are here to start.

I want to thank you for this opportunity. I'm Susan Perry, Senior Vice President, Government Relations, the American Bus Association. I particularly want to thank you for giving us the opportunity to testify today, especially for allowing us to cover a subject which certainly is more transit than highway specific.

I will be addressing the National Highway System at a later panel before this subcommittee. It's the other Susan Perry really but it's going to look surprisingly like me. You have my statement for the record. I'm aware of your time constraints and how late this is going and therefore, I'll make a few, very brief remarks.

The Federal Transit Administration in proposing to rescind its private sector policy and guidelines we think seems to be in direct conflict with Vice President Gore's reinventing government. In fact, David Osborne, Senior Advisor to the Vice President's National Performance Review which looked at ways to make the Government more efficient, has cited the FTA's private enterprise policy as a model program. Further, he advised it would be a mistake to eliminate it.

The Federal Transit Act, since it was enacted in 1964, directs that the private sector be included in the provision of transit services "to the maximum extent feasible." This phrase appears in several sections of the Act. The policy and guidelines that now are proposed to be rescinded give teeth to that direction. Nothing preceding that policy and guideline did this. If they are to be rescinded, what will the Federal Transit Administration do to ensure that private participation to the maximum extent feasible exists? We are very concerned about that and we've not yet had a satisfactory answer to that question of what is it that will replace the policy and guidelines and how will it be ensured that it does happen.

The law, the Federal Transit Act, says that private enterprise is to be a participant to the maximum extent feasible. The policy and guidelines issued in 1984 and 1986 are at best modest implementations of the law and the private enterprise program of the FTA has been cited as a model government program. We do not believe, therefore, that the rescission makes any sense. To the contrary, we believe it is a step backwards at a time when we need to make the most of all available resources for the provision of public services.

It is because of all of this that we hope your committee will take a very hard look at what it is that FTA has proposed to do.

Thank you.

Mr. RAHALL. Mr. LaGasse?

Mr. LAGASSE. My name is Alfred LaGasse. I serve as the Executive Vice President of the International Taxicab and Livery Association. The ITLA is a nonprofit trade association that represents the taxicab, livery, limousine, van and minibus industry. Our industry operates over 205,000 vehicles, provides livelihoods for over 355,000 men and women, and transports 2 billion passengers per year. Our industry provides one-fifth, or 20 percent, of all public passenger transportation trips.

We are here to express our alarm that in the Federal Register of November 26, 1993, the FTA published a Notice of Proposed Rescission of Private Enterprise Participation Guidance. This Notice announced the intention of FTA to abolish the underlying administrative procedures by which the private enterprise participation requirements of the Federal Transit Act are implemented.

The private enterprise participation guidance is a very modest effort to implement the congressional mandate that private operators be included to the maximum extent feasible in the provision of public transportation services.

The policy itself is really quite simple. It requires that localities set up a process, and mandates that certain items be a part of that process. I wanted to review those very quickly.

First, there is early consultation with private providers on plans involving new or restructured service. Second, there is periodic examination of each route to determine if the private sector could provide it more efficiently. Third, there is a description disclosing the criteria for evaluating if new or restructured service could be provided more effectively by private operators. Fourth, the use of cost as a factor in the public-private decision is required and fifth, a dispute resolution process is required.

Further, the circular required metropolitan planning organizations to submit, with their annual transportation improvement plans: one, a description of the involvement of the private sector in the development of projects; two, a description of proposals received from the private sector and how they were evaluated; three, a description of the impediments to holding service out for competition; and four, a description of the status of private sector complaints.

Significantly, the circular provides "The nature and length of documentation will be left to the grantee's discretion. It is FTA's expectation that the documentation will be kept to a minimum."

In the rescission notice, FTA asserts that are four elements of the private enterprise participation requirements that are burdensome. They are: one, the requirement of route review. The FTA's contention that reviewing established transit routes at least once every 3 years is "burdensome" is baseless. Not a single document, record or other item was produced by the FTA in response to a FOIA (Freedom of Information Act) request that ITLA submitted to FTA.

Second, fully allocated cost analysis, FTA's concern about grantees use of fully allocated cost seem misplaced in the rescission notice. Again, in response to our FOIA request, FTA produced no documentation whatsoever to support their concern. FTA appears to not fully understand its own policy. FTA policy does not require that the decision to contract out a service or to keep the service in-house, be made on the basis of fully-allocated cost. The policy simply requires that full and adequate consideration be given to private operators and that the fully allocated cost be noted for a particular service. However, for any specific service, the transit authority is free to bid marginal costs.

The third item is local institutional barriers. Local institutional and policy constraints on private sector involvement exists. The notice contends that such "institutional barriers should be recognized and given preference over the private sector enterprise participation requirements of the Federal statute." Although the notice argues that by not yielding to local institutional barriers, FTA denies flexibility to its grantees. By allowing local barriers to exist, the FTA change would prevent flexibility, prevent competition, and stifle the creative elements that can change fixed patterns.

Also, if you allow the localities to wall out the private sector, how could one possibly find that the private sector is included to the maximum extent feasible?

In conclusion, the facts and law do not support either the issuance of the rescission notice or the actions proposed in the notice.

There are 12 enforcement proceedings brought to FTA since this policy was enacted in 1986. You should remember there are over 900 grants issued per year and there are 3500 grantees and there have been only 12 complaints taken to the FTA.

We ask that this committee to direct FTA to either maintain the current policy or to conduct an honest study or rulemaking if FTA chooses to change the policy.

Thank you very much.

Mr. RAHALL. Mr. McLary?

Mr. MCCLARY. My name is James McLary. I am President of American Contract Management, a small private, for profit transportation provider. I thank you for the opportunity to present my view on the competitive contracting of transit services. I am also representing the Washington Private Operators Council whose members represent 90 percent of the contracted services in the Washington, D.C. area, many small entrepreneurs and my own company.

I really have two points I feel are relevant to your deliberations. One of the points deals with small business development and the second with monopolistic entities.

The first point I would like to discuss concerns small business development. I own and manage a small business that provides specialized paratransit services to transit authorities, cities and counties. This business has been helped by the private sector initiative pursued by the Federal Transit Administration.

My company was stated in 1992 and we now contract almost $3 million of service. We have nearly 85 employees and generate over $750,000 in annual payroll. My company represents an example of many small companies that have been created and many more small companies that survive because of the FTA competitive contracting policies.

In addition to providing jobs and opportunities to many minorities, we also have saved service that might have been abandoned if less expensive ways to operate were not found. All transit agencies are being faced with serious financial shortfalls and competitive contracting is one mechanism that will allow service to be retained at lower costs.

A second example of the results of competitive contracting is located right here in the Washington, D.C. area. Montgomery County started the use of alternative services with the creation of Ride-On in the 1970s. This service was an alternative to Metro and was started to conserve vital money. Since its inception, Ride-On has expanded, provided many innovative small bus services, and now contracts some of its own service with private companies.

In addition, Fairfax County recently awarded a contract to operate their major public works maintenance function and a second contract to operate the Reston-Herndon Express Service.

These are some examples in this area where our local private operators council has been very active. We are now working with the District of Columbia Government to help them identify where some transit service might be competitively procured to avoid a $15 million cut in Metrobus service. All of these examples save service.

My second point is that monopolies get fat. This is true in the private sector as well as the public sector. However, in the private

sector, if any company is able to develop a monopoly, quite often other entrepreneurs start offering the same product at better price. I'll point to two companies in my industry, Motorola and General Motors. Both of these companies were considered at one point to be the only act in town. Now there are three to four other major two-way radio companies that take the bulk of the market and General Motors no longer builds buses.

Transit authorities have no competition unless they are required to see other options. The FTA private sector policy requires them to look not contract. In my book as a business owner, I and my staff are always looking for better, more efficient ways to do our jobs. We have the bottom line incentive. I believe competitive tension makes all of us work smarter.

Thank you again for this opportunity and I hope that you will consider my testimony on behalf of all small private transit operators in the United States. Competition is good for all concerned, the policymakers, the operators of the service, and most importantly, the users of the service.

Thank you.

Mr. RAHALL. Mr. Martin has just arrived; and without allowing you time to catch your breath, you may proceed.

Mr. MARTIN. Thank you, sir. I will summarize my remarks. I understand everybody is pressed for time.

I am Kyle Martin, President of Mayflower Contract Services and a board member of the American Transit Services Council. My company provides competitively-contracted transit services to over 50 communities across America and the newly-formed American Services Transit Council's membership represents companies that are providing transit services under competitive contract to more than 150 communities.

During this past year, our membership employed a highly diverse work force of more than 8,000 people, more than half of these employees are minority or women and a significant portion of our work force is represented by six different unions.

Our key point here today is that the discipline of competitively bidding transit services using fully allocated cost utilizes market forces to ensure the most effective use of limited transportation resources. We believe the following should be the key criteria that guide policy to make public transit a more viable component in the overall transportation mix.

The consumer of the transit service must be given top priority not only in being provided a high quality service, but also in the most efficient delivery of that service. This holds true for those individuals who are transit dependent as well as those who ride transit by choice.

The taxpayer should have a clear understanding of the cost and benefit of that transit service she or he is helping to subsidize. Given today's demands on our communities, transit services should provide mobility and access to individuals that enhance the overall livability of the community. There is a crucial and vital role for public policy objectives, including providing access for those who do not have transit options to be accomplished through the provision of transit services.

To summarize, the American Transit Services Council urges the Department of Transportation, the Federal Transit Authority, Congress, States and local communities, to consider adopting the following policies. First, allocate a percentage—for example 25 percent—of the Federal transit operating subsidy on the basis of transit agencies demonstrating that they are improving their efficiency and effectiveness ratios as measured by Section 15 through competitive bidding based upon fully allocated costs.

Second, require each transit agency to provide an annual report to their service area which identifies the cost of services, including labor costs and all cost subsidies that are employed through pricing of service patterns compared to other agencies of similar size.

Finally, institute the use of fully-allocated cost as a basis for justifying all capital requests, including life cycle cost analyses that evaluate alternative methods of providing the service. This is relatively easy for the agencies to do given the reporting requirements of Section 15. It is very important that capital investments drive the transit industry.

These concepts are critical to strengthening the provision of public transit over the coming years. They assure the introduction of substantive information incentives and complement the processes being created through the metropolitan planning organizations. They are tools to encourage reasonable dialogue at the community level regarding the role and level of transit services.

On behalf of the American Transit Service Council, I wish to thank you for letting us testify.

Mr. RAHALL. As you know, under current Federal law, any transit agency in the country can establish competitive practices for any routes that it wishes. If the examples of savings by contracting out transit services attested to in your testimony can be replicated across the country, why wouldn't local authorities want to contract out their services without the threat of Federal funding sanctions?

Mr. MCCLARY. I will give my perspective and I'm sure the others will jump in also. I believe it is good business that they do consider competitive contracting and I believe that if the public is made aware of what the savings are, then the public will also get behind it. Part of the problem, is again my monopolistic theory, that if you have a monopoly and you have nobody challenging you, then you tend to run and you keep it to yourself. I believe unless there is some outside force—and this is also true in the private sector; I'm not just saying the public sector—if there isn't some outside force that charges you to do something, then you tend to retrench indoctrinate and keep it to yourself. That's part of my thought.

Ms. PERRY. I would only add that it appears when Congress first passed the Act in 1964, they anticipated this would be a problem and that's why they put in the encouragement in the statutory language in the first place. I suspect that was from having looked at what private monopoly did and having looked at other public monopoly but it seems there was anticipation that without something prodding, it would not just happen by itself and indeed, it did not.

Mr. MCCLARY. I believe it should also be noted in many cases, the public sector has bid against the private sector and won the contracts. While this is not what a lot of it is about, there is nothing wrong with that whatsoever. It is the competitive contracting

we think is important, not so much the privatization, which is kind of a negative word but it is the competitiveness of it that we believe makes the process work.

Mr. RAHALL. One of the hallmarks of ISTEA was renewed emphasis on local planning and control of transportation projects. In light of this, wouldn't it be perceived as a step backward to withhold a portion of a transit agency's operating assistance in order to force the local authorities to choose one transit service option over another?

Mr. LAGASSE. Not at all. It is a local process. All the Federal requirement does is say that the locals must establish a process. There is local control over the process and the locals do establish and carry out the process. FTA does not select who provides service; the money flows through the local transit authority and the local transit authority makes that decision. All we are doing is following the law which requires the inclusion of the private sector to the maximum extent feasible. The FTA has developed minimal guidelines for the inclusion of the private sector. It's just letting us get our foot in the door. We know it is important because before this policy was implemented in 1986, our association moved to Washington, to confront FTA. We no longer fight with FTA. We have become a part of the process. We know we are part of the solution to providing quality mobility to Americans.

We are very concerned about this action. It looks like it is intended to freeze the private sector back out of the program and it would return us to confrontation. That will not benefit anyone.

Mr. MARTIN. I think it is critical that we just are seeking assurance of a level playing field. It is incumbent upon us to sell the quality of our service and demonstrate that it is worth buying. You can't do that unless the playing field is level.

Mr. RAHALL. Thank you.

The gentleman from Wisconsin?

Mr. PETRI. Thank you for your testimony. I do have five or six questions that, with the Chairman's permission, I will submit to you for written responses. We still have 15 or 20 panelists to go and many of them probably have made some prior transportation arrangements themselves they would like to fulfill. Therefore, I would thank you and look forward to your written response.

Mr. RAHALL. Thank you very much.

[The questions from Mr. Petri and the responses of the International Taxicab and Livery Association follow:]

RESPONSES OF THE INTERNATIONAL TAXICAB AND LIVERY ASSOCIATION
TO THE QUESTIONS PRESENTED BY REPRESENTATIVE THOMAS PETRI
AT THE HEARING BEFORE THE
SUBCOMMITTEE ON SURFACE TRANSPORTATION
TO THE PRIVATE SECTOR PANEL ON MARCH 3, 1994

Do you believe FTA's proposed recission of private sector guidance, if finalized, will allow the agency to meet its statutory mandate to encourage, to the maximum extent feasible, private sector participation in transit programs?

If FTA's proposed recission of its private sector guidance is implemented, FTA will not be able to meet its statutory mandate to encourage "to the maximum extent feasible" private sector participation in transit programs. Without a federal mandate, many localities will not allow competition, and federal grant proceeds will not be spent in the most efficient manner. This is the way it was before the private enterprise participation requirements were adopted.

The mandate to utilize private operators to the maximum extent feasible, is at the core of any review of enforcement of the private sector requirements. It is this formulation of utilization "to the maximum extent feasible" that requires a process for evaluation in determining what constitutes "to the maximum extent feasible." That is why an administrative process is necessary to implement the congressional private enterprise mandate.

When using the phrase "to the maximum extent feasible" in other rulemakings, the FTA has set the standard that unless such a requirement is satisfied, evidence of the intent to comply is required. This phrase is used by the FTA in the regulation implementing the Americans with Disabilities Act (ADA) to effectuate the mandate that paratransit plans be submitted timely. That regulation sets forth, in pertinent part:

> "to the maximum extent feasible, all elements of the coordinated plan shall be submitted on January 26, 1992. If a coordinated plan is not completed by January 26, 1992, those entities intending to coordinate paratransit service must submit a general statement declaring their intention to provide coordinated service. In addition, the plan must include the following certifications from each entity involved in the coordination effort: (1) A certification that the entity is committed to providing ADA paratransit service as part of a coordinated plan. (2) A certification from each public entity participating in the plan that it will maintain current levels of paratransit service until the coordinated plan goes into effect."

This language manifests that compliance "to the maximum extent feasible" means that compliance is expected, not merely encouraged by the FTA. The term "maximum extent feasible" is also used in the ADA regulation in two other instances. The use of this language consistently in mandatory provisions of the ADA rule manifests not only the intent of the FTA to require certain conduct of parties affected by the regulation, but also demonstrates the agency's comprehension of the phrase as having mandatory affect.

In conclusion, we reiterate that the language to involve the private sector "to the maximum extent feasible" is not merely to the extent convenient to local authorities. This is a fundamental principle of the Federal Transit Act. It is also important to note that this leveraging of private sector investment is a fundamental tenet of the ISTEA. If the FTA's proposed recission of the private enterprise participation requirements is implemented, many localities will cease giving meaningful consideration to the private sector. If this occurs, FTA will be failing to carry out its congressional mandate to encourage "to the maximum extent feasible" private operator participation in transit programs.

Could you explain why the use of a fully allocated cost methodology is important as the only meaningful way to determine cost comparisons between public and private transit service?

The intent of the fully allocated cost methodology is to measure the true cost of a subset of transit services. The true cost can only be expressed by taking into account: (1) the direct cost of the service; and (2) the draw on the shared costs that is attributable to the service in question. To omit the attribution of shared costs is illogical and inaccurate – no subset of transit service exists in isolation from the central resources that are required to ensure the smooth and effective functioning of the system as a whole.

FTA's concern about grantees' use of "fully allocated costs" seems misplaced in the Notice of Recission. The Notice states, "The experience of many recipients, however, shows that in the context of their operations, the fully allocated cost methodology is not always an appropriate gauge of the true cost of providing a particular service..." In response to the ITLA's Freedom of Information Act filing, FTA produced no documentation whatsoever to support this statement.

More puzzling is that FTA does not fully understand its own policies. FTA policy does not require that the decision to contract out a service or keep the service "in house" be made on the basis of the fully allocated costs. It simply requires that full and adequate consideration be given to private operators, and that the fully allocated costs of providing a particular service be noted, even if the final contracting decision be made on the basis of the agency's marginal cost of providing a particular service.

FTA claims that public operators are at an unfair and unrealistic advantage under the Private Enterprise Participation Policy, because of the requirement that fully allocated costs be used when competing with the private sector in response to a procurement solicited by a third party. This argument spins the entire problem incorrectly. The problem, which is resolved by the private enterprise participation requirements, is to prevent federally subsidized public operators from unfairly competing against unsubsidized private operators for third party contracts. This is a clear statutory mandate.

The argument that comparing "fully allocated costs" artificially forces the grantee to accept higher costs than would be set if "avoidable costs" or other more "realistic" measurements of the cost of providing the service in-house were used is groundless. The determination of fully allocated costs, as noted above, may be discounted for costs that cannot be saved when determining the feasibility of using private contractors. Consideration of contracting out "to

the maximum extent feasible" is required by the statutory language of the Federal Transit Act. This is to be distinguished from open competition with unsubsidized providers for third party transit contracts, where fully allocated costs are the only fair way to compare costs. After all, no one pays the overhead of private operators allowing them to reduce their bids. Public transit agencies are not subsidized to compete unfairly with private enterprise.

What will be the impact of FTA's proposed recission on your member companies?

The private, for-profit paratransit industry is a very important segment of our country's public transportation sector. It transports two billion passengers annually; provides regular and emergency service 24 hours a day, 365 days per year; and serves communities too small to support bus service. The FTA's proposed recission of the private sector guidance will seriously impact ITLA member companies. First, since the FTA Private Enterprise Participation Policy was announced in October 1984, the amount of privately contracted paratransit service has increased by more than 135 percent. As transit agencies begin to implement new and expanded paratransit services to meet the tenets of the Americans with Disabilities Act, there should be expanded opportunities for private paratransit providers. Unfortunately, if FTA withdraws its private enterprise participation requirements, the statutory intent to ensure private sector opportunities will once again be ignored at the local level.

Despite the fact that competitively selecting providers of goods and services is a time-honored method for protecting the Federal and local taxpayers' investment in public programs, special interests often attempt to prevent even consideration of the private sector. Since more than 50 percent of ITLA members provide transportation service under contract, significant reduction in contracting opportunities will result in serious economic harm to hundreds of taxpaying firms that provide employment for many thousands of workers.

In addition to the reduction in contracting opportunities that will result from the enactment of the FTA recission, ITLA members will likely face increased, unlawful competition from federally subsidized public agencies. Before the FTA private enterprise participation requirements were developed, ITLA members spent a significant amount of time and money in protracted legal efforts to stop local transit agencies from illegally competing with them. Without the FTA policy in place, local transit agencies will illegally compete with ITLA members for contracts with private entities. While these abuses have been largely dormant for ten years, the lack of an FTA mandate will result in the resumption of these practices.

Could you comment on the apparent dichotomy between the Administration's statements in the "Reinventing Government" report and other policy statements and FTA's proposed recission? In the RIGO report, the only agency cited in the book for infusing competition into government service was the FTA. How do you believe President Clinton's own FTA can justify eliminating competition in transit services?

The answer is simply – the FTA's proposed recission of its private enterprise participation requirements cannot be justified! As we have stated above, FTA appears not to fully understand its own policies. The private enterprise participation themselves are a remarkably

simple and straightforward statement of the statutory requirements of the Federal Transit Act. The Private Enterprise Participation Policy of 1984 merely sets forth the intention to implement the statutory mandate to encourage the utilization of private operators in federally assisted transit programs to the maximum extent feasible. That policy specifically states that:

> "[A]s a general matter, [FTA] recognizes that local decision makers should be afforded maximum flexibility in developing plans and programs to meet local transportation service requirements. At the same time, [FTA] is obligated to ensure that local decision makers fully and fairly consider the private sector's capacity to provide needed transportation services."

The 1984 policy statement goes on to require notification to private operators concerning proposed services and to require that private parties have an opportunity to comment upon the development of local transit plans. The policy also, for the first time, created a formal process for complaints from the private sector about private enterprise participation compliance by grantees. This policy statement was also the root of the doctrine that the FTA will only hear complaints on limited procedural grounds. The grounds for appeal are: (1) that the grantee has not established a private enterprise participation process, (2) that the local process has not been followed, and (3) that the local process does not provide for the fair review of disputes. No appeal ever heard by the FTA has resulted in the determination that a private provider must be utilized or substituting the judgment of the FTA for that of a grantee on the merits of a public/private service decision.

There are several ways to comply with the private enterprise participation requirements of the FTA. Competing each new or restructured service is one means of compliance. Open competition for the provision of transit services is arguably the best way to obtain new or additional service inasmuch as the competitive process alerts all interested parties to the most efficient and effective service techniques. This concept is developed in the book *Reinventing Government* by David Osborne and Ted Gaebler. Osborne and Gaebler explain the benefits of competition and the evils of monopoly, including government monopoly, in providing services. In fact, as pointed out in your question, Osborne and Gaebler specifically cite the private enterprise participation requirements of the FTA as an example of an effective implementation of competitive reform. As Osborne and Gaebler make clear, there is no arena of public service that is not improved by competition. We reiterate, the FTA appears not to fully understand its own policies, nor the philosophy of "reinventing government."

Do you believe FTA's use of ISTEA as a rationale for its proposed recission is a valid one?

Absolutely not! FTA's use of ISTEA as a rationale for its proposed recission is yet another example that FTA does not understand its own rules. In the October 28, 1993, *Federal Register*, the Federal Highway Administration (FHWA) and the FTA jointly issued their final rules regarding statewide and metropolitan planning. A key element of these new planning regulations is that each metropolitan planning process must include a proactive public involvement process that provides complete information, timely public notice, and full public access to key decisions. Also, the new rules require states and MPOs to address or meet topical requirements in a way that supports early and continuing involvement of the public in

developing plans. However, while clearly private operators are one of the players that should be included in the required pro-active public planning process, neither the rules, nor the guidelines, single out private transportation providers for any special actions to provide for the maximum feasible participation of private operators.

The ISTEA Conference Committee Report states the following in reference to private operator participation:

> "In accordance with this provision [8(i)(5)], localities shall be afforded wide flexibility in establishing criteria to be used in determining the 'feasibility' of private involvement in local programs. However, nothing in this provision shall diminish the responsibility of the Secretary to encourage grantees of federally funded projects to provide for the maximum feasible participation of private enterprise in accordance with Section 8e." H.R. Conf. Rept. No. 404, 102nd Cong., 1st Sess. 414 (1991).

As the above remarks indicated, Congress intended with the ISTEA legislation to continue to promote private sector participation in federally assisted transit activities. ISTEA cannot reasonably be used as a rationale for FTA's proposed recission.

In 1984, when the FTA private sector policy was issued, there was about $5 million in annually contracted regular route service. Today, that number is closer to $500 million. Can you attribute FTA's encouragement of contracting to that growth?

Transit properties tend to be conservative institutions that are isolated from competition. Since the late 1940s, transit has been a declining industry with limited competition. Because transit faces so little competition, transit managers and employees confront relatively few pressures to change. Therefore, despite the statutory requirements that the private sector be encouraged to "the maximum extent feasible" to participate in transit programs, many localities never allowed competition until the FTA's private enterprise participation policy.

Nearly twenty years ago ITLA, then the International Taxicab Association, moved its offices from suburban Chicago to suburban Washington, DC. The move was undertaken to carry the fight against public funding for transit to the FTA (then UMTA) and to Congress. Twenty years ago, the Federal Transit Program had a direct and adversarial effect on the ITLA membership. We were unable to communicate effectively with public transit agencies. We were effectively excluded from the planning process until the public hearing required at the very end of the process. By this time, decisions were set in concrete and no one listened to the concerns of the private providers. Private taxi, van, and bus operators felt very threatened.

Hence, ITLA moved to Washington to deal with an adversarial federal transit program. The first barrier encountered was that there was no one to speak to. There was no person at FTA Headquarters who took any interest, much less understood, the problems of private operators. It did not happen overnight, but, finally, after almost a decade of effort, FTA convened a "blue ribbon panel" to draw out the critical issues that made it difficult for the private sector to participate in transit industry activities. The key recommendation of this "panel" was that FTA implement steps to increase the active involvement of private carriers in the local transportation planning and decision-making process.

In October 1984, FTA published its policy "Private Enterprise Participation in the Urban Mass Transportation Program. This policy committed FTA to ensure that private operators be given a fair opportunity to provide a share of the transportation services which receive federal assistance. The policy also encouraged the provision of unsubsidized transportation services in the marketplace. To coordinate implementation of this policy and to provide access for private operators to express their concerns, FTA established the Office of Private Sector Initiatives. Every bit as important as the other tools provided by the policy, this office gave the private sector a "home" at the agency.

The FTA's encouragement of contracting is largely responsible for the tremendous increase in contracted services being provided by private carriers over the past decade. If the policy is rescinded, not only will many of the gains achieved over the past ten years be lost, but as stated earlier, ITLA members will likely face increased, unlawful competition from federally subsidized public agencies. Before the FTA private enterprise participation requirements were developed, ITLA members spent a significant amount of time and money in protracted legal efforts to stop local transit agencies from illegally competing with them. Without the FTA policy in place, local transit agencies will illegally compete with ITLA members for contracts with private entities. While these abuses have been mostly dormant for ten years, the lack of an FTA mandate will result in the resumption of these practices.

We understand the FTA now only has one person out of 480 at the FTA assigned to the Office of Private Sector Initiatives. There may be plans to close the Office entirely. What is your view of these plans?

The importance of the Office of Private Sector Initiatives was noted in our response to the previous question. It is curious that FTA virtually closed this Office the same week it published its Notice of Recission. This is a prime example of FTA having "pre-determined" its final action on the Notice.

When ITLA moved to Washington in 1975 to deal with the adversarial level of the federal transit program, there was no person at FTA Headquarters who took any interest, much less understood, the problems of private operators. In October 1984, after FTA published its policy "Private Enterprise Participation in the Urban Mass Transportation Program," FTA was committed to ensure that private operators be given a fair opportunity to provide a share of the transportation services that receive federal assistance. To coordinate implementation of the policy and to provide access for private operators to express their concerns, FTA established the Office of Private Sector Initiatives. This office dispelled the myth that public transit and private operators should view each other as adversaries.

In direct opposition to the congressional mandate to include private operators to the maximum extent feasible, by closing the Office of Private Sector Initiatives, FTA is sending a message to its grantees that consideration of the private sector is no longer necessary from FTA's view.

# # #

Our next panel, Mr. Albert DeAtley, Chairman of the Board, The National Asphalt Pavement Association; Mr. Gordon MacDougall, Asphalt Rubber Systems, Washington, D.C. on behalf of the Rubber Pavements Association; Mr. Paul C. Mellott, Executive Vice President, H.B. Mellott Estate, Inc., Warfordsburg, Pennsylvania on behalf of The National Stone Association; and Mr. Doug Howell, Environmental and Energy Study Institute, Washington, DC.

Gentlemen, we welcome you to the subcommittee. We have your prepared testimony. You may proceed as you desire.

TESTIMONY OF ALBERT DeATLEY, CHAIRMAN OF THE BOARD, THE NATIONAL ASPHALT PAVEMENT ASSOCIATION; GORDON MacDOUGALL, ASPHALT RUBBER SYSTEMS ON BEHALF OF RUBBER PAVEMENTS ASSOCIATION; PAUL C. MELLOTT, EXECUTIVE VICE PRESIDENT, H.B. MELLOTT ESTATE, INC., ON BEHALF OF THE NATIONAL STONE ASSOCIATION; AND DOUG HOWELL, ENVIRONMENTAL AND ENERGY STUDY INSTITUTE

Mr. DEATLEY. My name is Albert DeAtley. I am a highway contractor from Yakima, Washington and Chairman of The National Asphalt Pavement Association.

We commend the subcommittee for holding these hearings and appreciate the opportunity to present our views on the National Highway System and Section 1038 of the Intermodal Surface Transportation Efficiency Act of 1991, ISTEA.

A full text of our testimony has been submitted for the record and I will briefly summarize it and will be pleased to answer your questions.

The two top legislative priorities for NAPA are congressional approval of the National Highway System and amending Section 1038 of ISTEA, use of recycled paving material to remove the mandatory minimum utilization requirements for crumb rubber-modified asphalt.

Throughout these hearings, there will be compelling testimony by the Federal Government, USDOT, FHWA, the States and private sector documenting the essentiality of the NHS to the economy of this country. We can add little to the facts and figures already presented and we urge timely approval of the National Highway System by Congress.

I'd like to address Section 1038, use of recycled paving material. Our major concern is Section 1038(d) the minimum utilization requirements. A State's failure to use crumb rubber in a certain percentage of their Federal aid tonnage of hot mix asphalt results in the loss of highway funds. Section 1038(d) is unprecedented in mandating the use of a specific product in the highway program with so little knowledge about the product itself or the consequences of its use. Let me briefly summarize our concerns.

Crumb rubber modified hot mix asphalt costs more than conventional hot mix asphalt. While there are claims that the cost of the product has come down, the latest information we have is from an AASHTO survey of September 1993 which indicates that for projects bid and constructed in 1993, the cost of crumb rubber modified asphalt was 67 percent more than conventional hot mix asphalt. The actual performance of crumb rubber modified hot mix

asphalt has been mixed. There have been both successes and failures.

There is limited knowledge in the States and in the industry on pavement structural design, mix design, production and construction methods of crumb rubber modified hot mix asphalt. The mandated use of the product without such knowledge will result in premature failures and wasted tax dollars.

The hot mix asphalt industry has been a leader in recycling its products since the 1970s, before recycling had become fashionable. According to the figures published by the FHWA, 73 million metric tons out of 91 million tons of asphalt pavement removed each year are reused in other highway projects. If for some reason crumb rubber modified hot mix asphalt is not recyclable, mandating its extensive use would be disastrous to the industry, the States and the society in general.

We don't know if the addition of crumb rubber modifier in hot mix asphalt will create additional air quality problems. Most hot mix asphalt facility owners have gone to considerable expense to control emissions from conventional hot mix asphalt in order to meet the clean air requirements. Any increase in emissions will result in significant cost to the producer to mitigate this problem.

There is a similar issue in asphalt fumes. We have conducted studies that show worker exposure to fumes from conventional hot mix asphalt does not pose a significant problem. However, the addition of crumb rubber in the mixture introduces the concern that there could be adverse health impacts on our workers.

In passing the 1994 DOT Appropriations Act, Congress took note of the concerns of the industry and AASHTO and placed a moratorium on any funding sanctions for failure to use crumb rubber from scrap tires in 5 percent of the Federal aid hot mix asphalt tonnage of 1994. Further, Congress directed that research be undertaken on costs and performance, as well as health and environmental impacts of the use of crumb rubber modifier in hot mix asphalt. The research has not even been started.

The conclusion is obvious. Little more is known about the product now than was known last year or for that matter that was known when ISTEA was passed. We support AASHTO's position that Section 1038(d), the minimum utilization requirements, be repealed or in the alternative, modified to permit flexibility.

The Strategic Highway Research Program has recently been completed; $50 million was devoted to improving the performance of hot mix asphalt pavements Performance-based specifications were developed for the asphalt binder and are under development for the hot mix asphalt mix. Should all this research be circumvented in order to accommodate this special purpose of legislation? Absolutely not.

Crumb rubber should take its place with other modifiers and compete in the marketplace and not be the subject of any special considerations.

We appreciate the opportunity to present this testimony. We are available for any questions.

Thank you.

Mr. RAHALL. Mr. MacDougall?

Mr. MACDOUGALL. Thank you for providing the Rubber Pavements Association with the opportunity to be here today. I serve as Executive Director of this association. I appear on behalf of Tim Baker who serves as Chairman of the Association and is unable to be here due to serious health problems.

Our association is comprised of companies which produce asphalt pavements containing recycled rubber, companies which produce crumb rubber for use in asphalt pavements and companies which support these two industries. I appear today on behalf of these companies to explain how crumb rubber from scrap tires is used in the United States and abroad to modify and improve asphalt pavements.

Crumb rubber has been used as a modifier dating back to the 1960s. It's use has been based exclusively on the performance characteristics of crumb rubber. The fact that crumb rubber is a recycled material has been a secondary if irrelevant consideration for engineers. The Federal Highway Administration has classified this product as a modifier, not as an additive because crumb rubber enhances the physical properties of asphalt.

Currently, over 30 States use crumb rubber modifier on a routine basis. Crumb rubber modifier is most widely used as a crack and joint sealant, an inner layer or in hot mix asphalt applications. These products have developed into a highly cost effective method of improving pavement performance and durability.

About 95 percent of the crumb rubber modifier applied in the United States and abroad is referred to as the wet process. This process is a preactive blend of about 300 pounds of crumb rubber per ton of asphalt binder mixed at a specific temperature for a specific period of time. This preactive process is also called asphalt rubber.

While there are other processes incorporating crumb rubber into asphalt pavement, the focus of my testimony will be on the prereacted process because, with some variation, this process is the most widely accepted within the engineering community.

The States of California, Arizona and Florida use asphalt rubber as a standard procedure in numerous applications. Extensive experience has shown that asphalt rubber makes longer lasting, lower maintenance roads. The use of asphalt rubber retards reflective cracking, reduces the propensity for rutting, reduces surface noise, retards the aging process and increases pavement flexibility.

California has 15 years of experience with crumb rubber modifiers. That State will use nearly 1 million tons of asphalt rubber hot mix in 1994 in approximately 10 percent of its asphalt paving applications. In California, asphalt rubber is used at a reduced pavement thickness by as much as one-half. FHWA approved the California design guidelines which result in reducing by one-half the total volume of asphalt and aggregate required when asphalt rubber is used in pavement rehabilitation projects.

The State of Florida, like California, is a leader in pursuing use of innovative materials to improve pavement performance and durability. Beginning this year, and this is a new development, they will use a prereacted process in 100 percent of their pavement surface treatments.

The State of Arizona, where asphalt rubber was developed, is using asphalt rubber in all climatic conditions ranging from extreme cold to extreme hot. Asphalt rubber works best in extreme temperatures.

The U.S. Army Corps of Engineers has concluded after extensive research that asphalt rubber ages more slowly and is more resilient than conventional asphalt alternatives. In recent testimony before Congress, the Army Corps Director for Research and Development stated, "We have demonstrated that we can increase the durability of asphalt pavements by including crumb rubber from tires."

Cost is perhaps the least understood and the most controversial aspect of asphalt rubber. A simple comparison of asphalt rubber and conventional asphalt material costs will show that asphalt rubber material costs admittedly are slightly higher. Simple material cost comparisons, however, are fatally flawed. Comparisons such as those conducted by AASHTO did not calculate up front savings resulting from reduced total project cost, as being experienced in California, or life cycle savings resulting from enhanced performance as being experienced in Florida. AASHTO's cost calculations, in our judgment, are fatally flawed. They are also outdated. They do not reflect market changes resulting from increased competition and economies of scale. These market changes are resulting from the expiration in late 1992 of the primary patents on asphalt rubber, the process which I mentioned earlier includes about 95 percent of the use around the country.

Opponents of the minimum use requirement of Section 1038 have claimed that there may exist emissions and recyclability problems with this material. Mr. Chairman, these same concerns have been raised publicly for nearly 10 years while evidence has mounted that they are unfounded. I have provided to the committee a bibliography of research reports refuting unfounded allegations that these materials are unsafe and not fully recyclable. The FHWA and EPA conducted an 18-month review of 20 years of research conducted on crumb rubber modifiers; they have found no evidence supporting these claims. We have challenged the critics to produce documentation supporting the claims. They have not done so.

Crumb rubber modifiers are being examined under a dual and increasingly hostile standard, largely because of the mandate. There has been no research conducted on the safety or recyclability of polymer-modified asphalt pavement, yet these newer materials are being widely accepted.

The goal of Section 1038 is to encourage greater use of proven products like asphalt rubber and to overcome barriers to innovation in the transportation procurement system. Our association urges this committee not to lose sight of that goal as it considers adjusting this statute.

Thank you for your attention to the interest of the members of the Rubber Pavements Association. We'd be happy to answer any questions you might have.

Mr. RAHALL. Thank you.

Mr. Mellott.

Mr. MELLOTT. Thank you, Mr. Chairman.

I'm Paul Mellott, Jr., Executive Vice President of H.B. Mellott Estate, Inc. from Warfordsburg, Pennsylvania. My appearance

today is on behalf of the National Stone Association where I serve as the Vice Chairman of the Board of Directors. I am accompanied by Bill Kelleher, NSA's Vice President of Government Affairs.

As President Clinton noted in his executive order establishing new principles for Federal infrastructure investments, "A well-functioning infrastructure system is vital to sustain economic growth, to enhance the quality of life in our communities and to protect our environment." To develop and maintain its infrastructure facilities, our Nation relies heavily on investment by the Federal Government. Our Nation will achieve the greatest benefits from its infrastructure facilities if it invests wisely and continually improves the quality and performance of its infrastructure programs.

The NHS has rightly been labeled the backbone of our transportation infrastructure system by Secretary Peña and is one of the wisest and most effective investments we can make as a Nation. NSA also wants to commend you, Mr. Chairman, for holding these hearings. You were in the first row when Rodney Slater presented the Administration's NHS proposal and you're here again in the forefront of congressional efforts for timely passage of the NHS.

NSA recommends the following: passage of the Administration's NHS proposal focusing on the development of the National Highway System that meets our intermodal transportation needs during the 103d Congress; restoring the $10.1 billion shortfall in ISTEA implementation funding that has occurred since adoption. These funds should be focused on building mobility, increasing capacity in our highway system and constructing the connections between our highway network and other modes of transportation.

NSA further recommends: (1) Providing guidelines and assistance to MPOs to help them balance local and regional needs with the NHS purposes of linking major population and economic centers that stretch across local and often interstate boundaries;

(2) Providing mechanisms that will recognize market-based approaches to building and managing infrastructure and promote public-private partnerships when opportunities to encourage economic growth and job creation can be enhanced;

(3) Working to ensure that gasoline user fees are put to transportation purposes and not diverted from their intended use. While the last Budget Act calls for the eventual return of 2.5 cents of gasoline taxes to the Highway Trust Fund, 4.3 cents will continue into the late 1990s to go for deficit reduction. At a time when our infrastructure's physical and financial deficit is growing, we should not be taking some $7 billion a year away from highway uses for nontransportation purposes.

Finally, we urge Congress to remove product requirements such as the mandated use of crumb rubber from the NHS.

The Nation's changing population counts and forecasts remind us that America is not standing still. Approximately 19 million new jobs will be needed by the turn of the century to accommodate our population growth. The U.S. Department of Commerce has projected the growth in public works investment and especially in highways must be increased by one-third more if our economy is to sustain the industries needed to supply those jobs.

The NHS must play a key role in helping to stimulate and support these jobs. MPOs must recognize that as the workplace and

employment centers spread across the region, the interplay between national, regional, State and local transportation needs and networks must be coordinated. While the exact nature of the link between transportation infrastructure and economic expansion is the subject of ongoing research, there is no doubt that infrastructure transportation services complement private capital investment and are necessary for economic growth.

The old business saying that "Nothing happens until you make a sale," has a corollary that "If you want to keep customers, you'd better deliver your products on time." A continuing underinvestment in our national highway network will retard economic growth and shift jobs and economic activity out of America into a global marketplace. Increasingly State and local economic development efforts are highlighting the quality of the workplace and education system and the ability of the transportation network to reach world markets.

If our transportation system will provide reliable and efficient deliveries, computer-integrated flexible manufacturing and inventory control systems can provide cost savings equivalent to long run production plans. Clearly, this application of technology demonstrates the interrelationship between private and public capital.

NSA strongly encourages you to make the public investments in the NHS that provide the foundation for these private capital innovations. NSA strongly supports passage of the Administration's NHS proposal. We recommend that Congress take into consideration the concepts contained in the President's infrastructure investment principles, especially the recognition that there are nonquantifiable benefits in infrastructure investment such as creating new opportunities through matching private and public capital.

We urge you to be optimistic about the future of our Nation and to build a National Highway System that will let our country grow both socially and economically.

We urge you to keep this legislation focused on building a National Highway System that can meet our intermodal transportation needs. The NHS is not the place to impose product standards like the use of crumb rubber or to settle local disputes through the inclusion of products that do not serve the national purpose.

On behalf of the 72,000 working men and women and 1,000 quarries that make up the NSA, we urge you to pass a clean NHS program and to fully fund it as called for in ISTEA, including the $10 billion authorized for the beginning years of ISTEA but not yet appropriated.

Thank you.

Mr. RAHALL. Go ahead, Mr. Howell. We will hear you and then I will have to break for a vote and come back.

Mr. HOWELL. Thank you, Mr. Chairman.

I know you have been looking at a whole lot of witnesses and you've got a lot more to come. I want to say I think you're doing a great job of including all the new players in ISTEA, including a big showing from the environmental community. We appreciate that.

I would also like to pay tribute to your staff and the Minority staff. I know they have worked very hard to include a lot of folks here today.

My name is Doug Howell. I am with the Environmental and Energy Study Institute. We are a nonprofit, independent organization devoted to promoting environmentally sustainable societies.

I brought a statement of support for Section 1038, the rubberized asphalt provision, signed by 117 organizations that calls for full implementation of the section. I'd ask that this be submitted to the record.

Other articles I brought relate to reduced noise production. I brought some comments from the Corps of Engineers made reference to earlier by Mr. MacDougall, and the true cost effectiveness of asphalt rubber paving systems, a paper sponsored by the American Society of Testing Materials; and a paper about the energy savings in greenhouse gas reductions from using rubberized asphalt. If we could have these entered in the record along with my prepared statement, that would be great.

Mr. RAHALL. Yes.

Mr. HOWELL. I'm not here just representing EESI but the 117 organizations thus far that have signed onto a statement of full support for Section 1038. We represent the environmental community, recycling community, solid waste, public health, industry and energy organizations.

What makes this outpouring of support so clear and evident is that the 1038 provision is one of the most significant recycling provisions ever passed by Congress. It is unique. It takes a massive environmental problem created by the transportation system, 250 million used tires a year, takes that problem and puts it back into the system for a better road. That is what makes this provision so unique and that is why you have seen such a big showing of support for Section 1038.

I would like to say one thing I hope comes out of this in review of 1038 is that there is a continued emphasis on performance. One thing that is unique about rubberized asphalt is that it does and can improve the road when used properly. That takes me to the first point, technology transfer.

I was very glad to hear Mr. DeAtley talk about the limited knowledge of rubberized asphalt in the States. You could really characterize the problems that we've seen with 1038 as a technology transfer program. We urge this committee and you, Mr. Chairman, to ask Federal Highway and AASHTO to start to pursue aggressive technology transfer programs, including training, not just a paper shuffle of information going on about the latest procedures that are being used, but aggressive, hands-on, individual training of the contractors and the State DOTs to make it work. We believe a lot of the problems you are hearing about could be handled with an aggressive technology transfer program.

The other thing I'd like to go into is some of the amendments that you may be seeing. I was here on Tuesday listening to the States and what you heard a lot about was asking for flexibility. One way that they are asking for flexibility is that you include civil

engineering applications. We have some problems with this attention being placed on civil engineering application for the use of tires to meet the requirement.

First of all, that will start to detract from performance that you can get with improved pavement by using rubberized asphalt. What will happen, we believe, if you include civil engineering applications, they are going to start dumping all the tires into high tech landfills and ignore the real beauty of this provision and that is enhanced pavement.

The other problem we see with using civil engineering applications relates to having a performance criteria for these civil engineering applications. One way you can begin to get a sense of where these things rate on a system of value is if you look at EPA and State tire abatement programs. Tires, if they are reused as a retread, is one of the highest values in the hierarchy. The next is to be recycled as in crumb rubber for your pavement. The third is the waste energy programs and the fourth is landfills.

Most of the current civil engineering applications that could qualify for State tire abatement programs are in that fourth rung. So when we look at performance it is clear to us that rubberized asphalt is a much higher value use of the tire than a civil engineering application.

Another issue I'd like to address which came up on Tuesday is people started to say that they would have to import tires to meet this 1038 requirement. That was even told to you by some of the State DOTs. I hate to say it, but that is wrong. I have had extensive conversations with EPA and if in fact the States are addressing their tire abatement programs and they have successful programs, they can file for an individual reduction of the requirements. There have been five States that have petitioned and no one has passed. Wisconsin, Congressman Petri's State, has an excellent tire abatement program and yet even his State did not qualify. So there is no lack of tires in the State to fulfill the requirement. If there is any question about that, we strongly recommend this committee talk directly to EPA and ask them about the Tire Abatement Program which does the evaluation of the existing stockpiles of tires in the country which is as we know 2 to 3 billion stockpiled throughout the United States.

One other thing I would ask. We can work with the committee on revising some of these penalties, they don't need to be as draconian where you lose all 20 percent of your funds. If in 1997, the requirement is 20 percent, you make 19 percent, then you miss it by 1 percent and you get docked 20 percent of your funds. We too think that is draconian and we believe we can work with revising these. Perhaps one model could be if you miss if by 1 percent, then you get penalized by 1 percent. These are the types of conversations we would like to engage in.

My last request is that as you look at this issue, please keep the process open. We would like a chance to see whatever legislation is going to be considered well before it goes into markup. We are here trying to represent 117 organizations and we're the new players in ISTEA. We will have no opportunity to play in this game if we are not given opportunity to review the legislation that we marked up.

That's our final request. We certainly would be glad to answer any questions you have.

Mr. RAHALL. Thank you, gentlemen.

I'm going to have to go over to the House floor to answer this roll call vote. I'll be right back.

[Recess.]

Mr. RAHALL. Thank you all for your testimony.

The next panel consists of Mr. Robert Sprenger, President, Tavern League of Wisconsin; Mr. Charles Taylor, President, Madison/Dane County, Tavern League; and Mr. Scott Stenger, Governmental Affairs Director, Tavern League of Wisconsin.

I'll recognize the Ranking Member, the gentleman from Wisconsin.

Mr. PETRI. Mr. Chairman, I want to thank you for scheduling this panel and I want to thank the panelists for coming from beautiful Wisconsin out here to snowy and slushy Washington and for your testimony. We have in Wisconsin a very large and active Tavern League. Wisconsin, because of ethnic background of our State and our State's history of small towns and so on, probably has more taverns and family gathering places per population than any other State in the country. They are generally family operations, neighborhood operations, they are an integral part of the community and they are very active in promoting their communities. Members have taken the lead in our State in helping people to become aware of the problem of drunk driving. It has been cut by 50 percent as I think some of you will be testifying.

There is progress to be made around the country on this but the Wisconsin Tavern League is to be commended for being one of the leaders in our State in the effort. Congratulations and I look forward to your testimony.

Mr. RAHALL. The other gentleman from Wisconsin on the subcommittee, Mr. Barca?

Mr. BARCA. Thank you, Mr. Chairman.

I too would like to welcome my fellow Wisconsinites here. It is very nice to have you appearing before our committee. I'd like to just add to some of the points Mr. Petri made and I thought they were very much on target.

We appreciate the efforts that all of you have made to, first of all, come here to testify, but also for your efforts in the Wisconsin legislature. I served for 9 years in the Wisconsin legislature prior to being elected to Congress and I had the opportunity to work closely with the Tavern League on a number of different legislative proposals. They have always been a very responsible group in terms of trying to help advance legislation that would be meaningful for the various small business owners that own taverns throughout the State of Wisconsin and also in helping as well to come up with promotional campaigns to promote responsible drinking which I think is a very far-reaching effort on your part.

I just would like to welcome you here today and thank you for flying out here to share the perspective you have to share with the committee. It is nice to have you here.

Thank you, Mr. Chairman.

Mr. RAHALL. Thank you.

Gentlemen, we have your prepared testimony and you may proceed as you desire.

TESTIMONY OF ROBERT SPRENGER, PRESIDENT, TAVERN LEAGUE OF WISCONSIN; CHARLES TAYLOR, PRESIDENT, MADISON/DANE COUNTY TAVERN LEAGUE, AND SCOTT STENGER, GOVERNMENTAL AFFAIRS DIRECTOR, TAVERN LEAGUE OF WISCONSIN

Mr. SPRENGER. Good afternoon, Mr. Chairman and members. Thank you very much for the opportunity to be here this afternoon. I would like to especially thank Congressmen Petri and Barcia for all the help they have given us on these issues.

My name is Robert Sprenger. I am the President of the Tavern League of Wisconsin. The Tavern League of Wisconsin is a trade association of over 4,000 members. I personally own and operate a small bar in northern Wisconsin, I have for the last 17 years.

Over the past years, the Tavern League of Wisconsin has experienced tremendous decline in alcohol-related crashes and fatalities. The Tavern League of Wisconsin has been instrumental in helping to reduce drinking and driving in the State of Wisconsin.

We currently have 11 local county Tavern League chapters who fund and operate ride service programs. These programs will pay for a free cab ride home for someone who may have had one too many. These ride service programs have been tremendously successful in providing rides to individuals who might have otherwise driven home.

In addition to operating the ride service programs, we also promote programs to encourage groups to use a designated driver program. As a matter of fact, in 1983, we instituted our first designated driver's program in Wisconsin. We were also commended by the Governor for helping to make 1992 the safest year on Wisconsin highways since World War II. We have been at the front lines in helping to reduce alcohol-related crashes and fatalities in the State of Wisconsin.

When the State of Wisconsin raised its drinking age to 21 in 1986 out of fear of losing the Federal highway dollars, the State Department of Transportation and the Department of Health and Human Services were instructed to report to the legislature the impact of raising the drinking age. The Department of Transportation said alcohol-related crashes have been down for 19 and 20-year-olds. The Health and Human Services report said that there was no decline in the alcohol consumption by underaged drinkers. As a matter of fact, underaged drinking arrests have risen over 500 percent since 1984.

In Dunn County, a county in northern Wisconsin, they use airplanes with night surveillance to reach out for underaged drinking parties. The sheriff of that county says, "We're no different than any other areas, all counties have drinking problems. Some choose just to ignore them." Unsupervised parties on college campuses, in cornfields, rural areas where they charge $2 or $3 per person to drink all you want all night. That's the rule, that's not the exception to the rule. Because of the 21-year-old drinking age, our young teenagers, 14, 15 and 16-year-olds find themselves at underage

drinking parties with 19 and 20-year-olds, not a very good social aspect.

Twenty-eight other States have laws allowing 19 and 20-year-olds to be on premises in bars and restaurants but they do not allow them to consume alcohol. By passing this type of law, they do not lose any portion of their Federal highway revenue because they comply with the 21-year-old drinking age.

The State of Louisiana passed a 21-year-old drinking age law and then turned around and passed another bill to remove any penalties for serving alcohol to persons 19 or 20. According to the University of Wisconsin officials, alcohol use by underaged drinkers is growing so fast and seriously that police are having a hard time figuring how to stop them. Parents, teachers, law enforcement people, legislators and city officials are starting to realize that 21 is not the solution it was thought to be and most of them are now supporting a 19-year-old drinking age.

What we are asking for is a review of the 21-year-old drinking age mandate. Adults, aged 19 and 20-years-old, continue to drink. However, in many circumstances, it is in an environment with much younger teenagers. It's really odd that our Government believes that a 19-year-old is not responsible enough to legally consume alcohol but the same Government gives them the awesome responsibility of flying a multimillion dollar aircraft in defense of this country.

The time has come to be honest with the debate on the facts surrounding drinking age instead of ignoring the problem altogether. Legislators in our State want to deal with the problem, but cannot because the loss of Federal highway revenue looms over their heads. Let's put an end to this Federal mandate. Let States make the objective decisions themselves, not decisions influenced by Federal mandates.

I thank you very much, Mr. Chairman.

Mr. RAHALL. Mr. Taylor.

Mr. TAYLOR. My name is Charles Taylor. I own a restaurant and tavern on State Street, the great street in Madison, right on the campus of the university and the age certainly affects my business.

I want to begin by thanking you for holding this hearing. You have rejuvenated my belief in the system. I've been told for 4 or 5 years to give up on this issue, so I'm extremely appreciative to my Congressman from Wisconsin on this committee.

I truly believe it is time to reevaluate the 21-year-old drinking age. Certainly the statistics show that the roads are safer than ever and yet the negative fallout from the change needs to be addressed.

They say once you get to D.C. you lose touch with the home district and they say that you lose touch with reality. I'd like to attempt to reconnect you with the reality of your actions when you effectively passed the 21-year-old drinking age. Actually, I wish the age would have been dealt with as a separate issue and we might not even be here today.

It was a very narrow vote in Wisconsin. In fact, a special legislative session was called in 1986 and the key issue was not highway safety. It was the fear of losing the Federal highway funds. This is still the case. This type of blackmail is a poor way to govern and

it seems to be used more and more often lately—speed limits, seatbelts, drinking age, cycle helmets, blood alcohol levels. Why do you resort to withholding funds if States don't comply? The reality is more issues need to be resolved at home. At any rate, I'm sure you will find our proposal reasonable and fair and I appreciate your consideration.

We simply ask that Wisconsin be granted a two-year waiver from the loss of Federal highway funds in order to track the safety of the roads and the behaviors of the young adults affected. There is so much more to the issue than the DOT statistics, although I believe they actually confirm our contention that the age should be lowered. There isn't a municipality anywhere that can say the age change didn't create an enforcement nightmare, so much so that the Madison City Council and the Madison Police Department have gone on record supporting the change back to 19. They need the manpower and the resources to deal with the real problems of a growing urban area. They don't want to see Madison fall the way of other nearby metropolitan cities.

What the Federal Government effectively did was to force this large group of young adults out of the clubs and the dancehalls and some eateries onto the street. They were left with no place to congregate and socialize. Is there any wonder why some of this group have gotten into serious trouble? Of course the smarter and wealthier ones were simply able to buy or produce fake identification cards. At my small, little place, I confiscated over 400 fake IDs in the first 8 months of the new law.

One enterprising young law student at the university dropped out because he was making so much money producing false identification cards. Unfortunately, he's going to find it very hard to get that law license with a felony conviction that he ended up receiving when he got caught.

The underage apartment and fraternity parties, the $3 a couple, all-you-can-drink binges, the hidden parties in the quarries, et cetera have gotten so out of hand that police fines approach $600 for consumption, the individual 19 and 20-year-old for just the consumption of a glass of beer. For those people that have hosted these parties, most times for profit, the fines are reaching $2,000. Was this your intent when you raised the age?

This enforcement problem certainly has created safety concerns on and off the highways. By putting these people in licensed, supervised establishments, much of this concern will be resolved. Not even DOT would dispute that raising the age has changed any drinking habits, only where it is done. Liquor law violations have tripled since the change. So if more people are drinking and often more and often at an earlier age, why are we finding fewer crashes with this age group. The answer is really derived by looking at the numbers in all age groups.

Regardless of the drinking age, people in all age groups are responding to education efforts, they are staying out of their cars when they've had too much to drink. Tougher drunk driving laws, no plea bargaining, awareness efforts, designated driver programs and free cab rides sponsored by the licensees are the reasons the roads are safer. It has nothing to do with the drinking age. As long as alcohol is legal, we need to educate our young people in the

proper use and the problems of abuse. I believe if you search your memories to your teenage years and your education, you will agree with me.

Preaching abstinence from alcohol until 21 has led to binge drinking in unsupervised settings where the consequences have been increased vandalism, altercations, date rapes and death. If your real concern is safety, let's put millions of dollars into speeding enforcement. In Wisconsin, only 6 percent of crashes were blamed on alcohol in 1992, while 14 percent were blamed on speed alone. It's time to stop the discrimination of our young adults aged 19 and 20. By granting the waiver, these people will prove that they are more responsible than their counterparts over 21. If not, I guess you'll continue to hand out the tax money in DOT grants like the Madison Police Department just received for raiding underaged parties and stinging tavernowners.

If my assumptions are wrong, the waiver ends and we won't need to debate this issue anymore.

Thank you very much.

Mr. RAHALL. Mr. Stenger.

Mr. STENGER. Thank you, Mr. Chairman, and I'd also like to thank Congressmen Petri and Barcia for helping us out on this issue.

I'd request that my testimony and data be entered into the record.

I appear before you today address the issue of withholding a percentage of Federal highway funds from States who do not comply with the 21-year-old drinking age. The United States has the strictest drinking age in the world. By 1987, all States complied with the Federal ultimatum to increase the minimum age to 21 or lose a portion of their Federal highway revenue.

Wisconsin increased its drinking age to 21 in September of 1986. When the legislature raised the drinking age, it also mandated the two studies that have been talked about earlier. The final report from the Department of Transportation stated, "Factors other than the 21 minimum drinking age, have probably affected the rate of drinking driver accidents which has gone down dramatically in Wisconsin for all age groups over the past 10 years."

However in its final report to the legislature, the Department of Health and Social Services stated "There has been little or no change in drinking patterns among juveniles and young adults since 1988 when the full implementation of the drinking age took effect in Wisconsin.

The report also cited the following findings: 92.7 percent of high school students have tried alcohol; there has been no decrease in binge drinking by high school students. The data concluded that there has been a statistically significant decrease in drinking and driving among high school students. Data on alcohol and drug use patterns of all persons 18 to 21 who are admitted to the Department of Corrections field supervision or to prison, indicate that their reported incidents of alcohol and drug abuse increased between 1986 and 1990. The percentage of young prison admissions who exhibited alcohol abuse problems was higher in 1990 than any other year to the mid to late 1980s.

Prison admission data showed a 9 percent increase in the incidence of young persons who exhibited alcohol abuse problems. Between 1984 and 1990, there was a 77 percent increase in the percentage of young field supervision caseload admissions who exhibited frequent alcohol abuse problems.

The increase in the drinking age does not appear to have deterred drinking by younger persons but rather, resulted in dramatic increase in arrests for liquor law violations. Compared to 1984, in Wisconsin there has been an increase of 522 percent in liquor law violations.

In addition to the report by HHS, the recent study conducted by the University of South Dakota's Department of Psychology found that despite societal efforts to curb drinking by adults aged 18 to 20, the opposite effect has actually occurred. This theory is referred to in the study as the reactance theory which concludes that the drinking age law changes to 21 caused underaged students to drink more alcohol because of the belief that their behavioral freedom is being reduced. This theory would help explain why other countries with lower drinking age or no drinking age at all do not experience the same rate of problems associated with alcohol.

Like the rest of the country, Wisconsin has seen a tremendous decline in alcohol-related crashes over the past 10 years and the Tavern League of Wisconsin has been instrumental in helping to contribute to a 60 percent decline in alcohol-related crashes and a 50 percent decline in alcohol-related fatalities since 1979. That is for all age groups.

Most everyone involved in the debate in reducing alcohol-related crashes, including DOT, concede that other factors have been instrumental in reducing alcohol-related crashes for adults aged 19 and 20. Tougher drunk driving laws increase fines, increase public awareness and education and societal change in attitudes about drinking and driving and all contributed to lower alcohol-related crashes and fatalities.

We would like to request that the committee require a study conducted by the University of Wisconsin using a portion of the $2.1 billion annual apportionment amount of the Federal grant money the State of Wisconsin has qualified for to focus on the impact the 21-year-old drinking age has had in Wisconsin. I spell out in the testimony some of the issues that might be relevant to ask.

We have had one study by the Department of Transportation and one by the Department of Health and Social Services. Both are telling us different things, so we would like to see what's going on specifically with the data that both those agencies have gotten over the past 7 years.

Thank you very much for taking the time to listen to our concerns and we hope we are able to work with you in putting forward a comprehensive study in Wisconsin on the impact of the 21-year-old drinking age.

Thank you.

Mr. RAHALL. Thank you, gentlemen.

I'll recognize the gentleman from Wisconsin, Mr. Petri.

Mr. PETRI. Thank you very much.

I want to thank you very much for taking your time to come out here and spend some time with us and with people on our staff and

testifying here on behalf of your association and the people in our State.

Madison, Wisconsin is well known in the country. I don't know if its reputation is deserved or not but it is regarded as a progressive bastion and enlightened place, sometimes cited as a place we should look to as a trendsetter. So could you expand a little bit on what the position of the city fathers, the city council and so on is on this issue, and what the debate was, how close it was, and how they came down on this?

Mr. TAYLOR. I truly believe there is some philosophical reasons that you've heard many times—if I can go to war, if I can marry, if I can take a bank loan, if I can buy a car— there is that philosophical reason that these people are adults in every other way of life. Then there gets to be the true reality of being down on the street. The police departments all over the country don't have the resources; consequently, they have made it a low priority finally but not without a lot of punishment to the students or the underaged people drinking, the owners, et cetera.

I think that there are so many more important issues that they want to use their money and their resources for, again, I don't think in terms of the city council or the police department, they have the philosophy that 21 was the right thing to do.

Mr. PETRI. Mr. Sprenger, you talked about the study with the reactive theory. It's my impression—I could certainly stand corrected on this—that the result of the prohibition experience in our country was not to reduce drinking in the United States or increase respect for the law, but in fact it had a reactive theory for all of the adults and probably for some of their children as well. We saw a growth of drinking in the United States became it became a way of protesting against the system at that time. It was something that people could socialize together to do and ban together. Anyway, it was a counterproductive experiment and the impression I have and I think most people have whether they were for or against drinking, is that it just didn't work.

Now we are trying it with this particular age group who are adults in other respects and who, as Mr. Taylor pointed out, may resent being denied a particular privilege that other adults have while they have all the responsibilities that other adults have.

Since it has been in effect for a number of years, it does seem to me that it might make some sense to get responsible people, a panel or whatever, that could screen the study to make sure it was objective. Some wouldn't just try to reach some preordained conclusion, but look at what our experience has been in Wisconsin and other places in the country, study the North Dakota academic study and other literature and give us a real picture of whether this is a successful thing or just something Government has tried and it's not working.

Specifically, have you talked about this with the transportation department in Wisconsin, the University of Wisconsin? Are you talking about taking the $2.1 million from Federal grant money to the State of Wisconsin that they would be getting already or do you think it would be better for us to work with these people. You know

as well as I do, if they are getting this money and the State Highway Department doesn't like it, they may not go along with a study like this if they feel they have a higher and better use for it.

I'd appreciate any enlightenment on it. We'd be happy to try to work with you on that request.

Mr. STENGER. Certainly. I think that is one of the reasons we are here, that we have worked with the Department of Transportation in Wisconsin and they do have money, $2.1 million right now that is in their fund which we feel would be available for this type of a study. They don't and so that's why we're trying to see if we can have some support from this committee.

I also should point out there is a bill in the Wisconsin legislature which the bill would lower the drinking age to 19 and it passed out of one committee 5 to 3 earlier this year. Another committee right now is reviewing it. The legislators who supported that bill had heard from constituents in their district and they see the problems associated with underaged drinking.

In the testimony I've provided, there's letters that we have received from people who have written us talking about the problems they have experienced from law enforcement, local police and sheriffs. Many police departments and police officers support a 19-year-old drinking age in Wisconsin.

Mr. PETRI. It may be that the Wisconsin authorities feel that if it is a nationwide study that would be useful to the whole country, then the whole cost shouldn't come out of Wisconsin. We will be happy to work with you on that and see if there is some basis; $2.1 million may seem small, but it still seems like a lot to me, so I think we probably should be looking at that too.

Thank you again and we look forward to working with you.

Mr. RAHALL. Gentlemen, this is a truly bipartisan committee. We like to pride ourselves on that fact, and in recognizing the next gentleman from Wisconsin, I want to say to you that you have two very effective, distinguished and able representatives in the Ranking Minority Member, Mr. Petri, and Mr. Barca, who I am now going to recognize as well.

Mr. BARCA. Thank you very much, Mr. Chairman.

I appreciate the opportunity and we appreciate the fact that you enabled these representatives from our State to come here to testify to share this information with us.

I don't want to belabor it because the hour is late but I do want to make sure that I'm completely clear on the status of the Federal law, what you are asking for. Basically, what you're saying is you want us to authorize that a waiver could be granted for the Secretary of Transportation in any State that would so desire to be able to utilize that money to do a study of this sort. Is that correct?

Mr. STENGER. That is correct. That is what we are trying to do, if we can get some sort of waiver to not lose Federal highway dollars and to have a study to accompany that waiver that would point out what effect 21 has had in Wisconsin and nationwide. That is what we are trying to accomplish.

Mr. BARCA. Would you make it discretionary, at the discretion of the State Legislature or the Governor or the State Secretary of Transportation? How would you frame that under your request?

Mr. STENGER. Discretionary in the sense of whether they do the study?

Mr. BARCA. Yes.

Mr. STENGER. We would like to require them to complete the study and they have done a number of studies with the university, they are familiar with the capabilities that the university has in performing studies. I think if we could allocate the funds to do that, it shouldn't be any problem to go forward with the study but right now, we haven't had much success in achieving that in Wisconsin.

Mr. BARCA. So you're saying the major issue is to authorize the monies so the funds will be there for them to conduct that. You have every confidence that at least in Wisconsin, and maybe in other States, if the money were provided, they would have no objection.

Mr. STENGER. That's correct.

Mr. BARCA. Thank you very much. I appreciate your being here. Thank you, Mr. Chairman.

Mr. RAHALL. The gentlelady from Virginia, Ms. Byrne?

Ms. BYRNE. No.

Mr. RAHALL. Gentlemen, thank you very much for taking the travel time especially to be here with us. Your testimony has been very effective.

Our next panel consists of the following individuals—Mr. Robert A. Peck, Group Vice President, External Affairs, The American Institute of Architects, Washington, DC.; Mr. James W. Poirot, P.E., President, The American Society of Civil Engineers, Washington, DC; Mr. Les MacFarlane, President-Elect, American Consulting Engineers Council; and Mr. Ray Pethtel, Commissioner, Virginia Department of Transportation.

Gentlemen, we welcome you to the subcommittee. We appreciate your patience on a long day. We have your prepared testimony and it will all be made a part of the record.

Mr. Peck, do you want to go first?

TESTIMONY OF ROBERT A. PECK, GROUP VICE PRESIDENT, EXTERNAL AFFAIRS, AMERICAN INSTITUTE OF ARCHITECTS; JAMES W. POIROT, PRESIDENT, AMERICAN SOCIETY OF CIVIL ENGINEERS; LES MacFARLANE, PRESIDENT-ELECT, AMERICAN CONSULTING ENGINEERS COUNSEL; AND RAY PETHTEL, COMMISSIONER, VIRGINIA DEPARTMENT OF TRANSPORTATION

Mr. PECK. Thank you, Mr. Chairman and members of the subcommittee.

I am Robert A. Peck from the American Institute of Architects. I'm accompanied behind me by our Senior Director, Al Isenberg, who I mention in part because he is an elected member of the Arlington County Board and in that capacity, serves on some land use and transportation committees of the Northern Virginia Transportation Commission, sort of a sub-MPO group. So he has a lot of hands-on experience with planning.

We appreciate your taking the time to hold the hearing and for staying long enough to hear us. We are going to talk to you today about planning.

We are a member organization of the Surface Transportation Policy Project and we know you heard from STPP on your first panel this morning. We were one of the first conveners of a coalition which grew to become the Surface Transportation Policy Project and in that capacity, helped develop ISTEA's planning and citizen participation provisions, as well as the Transportation Enhancement Program.

We are here today because we are concerned that the proposed National Highway System meet the spirit of ISTEA, a bill for which we think you can justly take a great deal of pride. We want to make sure that the NHS fits within the provisions that made the Act so innovative and forward-looking. The ISTEA planning process is clearly at the heart of ISTEA. We believe that any NHS project, connections to any modal facilities, and any modifications to NHS in the future should all be anchored in ISTEA's planning process, both the metropolitan and State level processes in Sections 134 and 135. We also think that in consonance with the planning process, they should all be subject to public participation provisions.

The proposed NHS and its relationship to the planning process is currently unclear in the law. I believe you heard earlier today from others who have talked generally on the same subject. America's architects are concerned about this because architects know above all that the basic decision of where to locate a facility predetermines an awful lot of other decisions that come afterward. There is nothing more important. All kinds of things that have to do with how expensive a project is, whether it becomes a burden to the environment or an enhancement of the environment, all flow out of that initial decision.

The Administration has proposed that Congress adopt language approving designation of NHS and further proposes a process subsequently identifying intermodal connections and other modifications. Those would be subject to the planning process. The Administration's proposed legislation also underscores the proposition in general that NHS should not exist in isolation but as part of an integrated transportation system. We agree with those provisions and with the Administration's general approach. We simply believe they don't quite go far enough.

A reading of the language makes it clear that unless the States propose new highway segments, including intermodal connections or deletions, then the NHS can basically be established without having gone through the new planning process which we think is, as we say, the keystone of ISTEA. The planning process takes it from the old form of transportation planning in this country, which was often just an accumulation of wish lists, and turns it into a modern system which takes into account economic, productivity, and environmental concerns.

We think that establishing the NHS outside the new planning system would create unwarranted confusion. Incorporation of NHS into the ISTEA planning process is the only way States will be able to determine eventually what routes should be deleted or modified without inadvertently undermining the entire NHS. We think, at the very least, that projects subsequently proposed for funding on the NHS, should be subject to ISTEA's planning provisions.

The Department of Transportation's report to the Congress on NHS says explicitly that will be the case, but we note the recommended legislative language does not appear to accomplish that and only requires that modifications be subject to the planning process. Moreover, as a result, there is no specific requirement that the public be involved in decisions about developing the routes.

There is every reason to validate the designated NHS and in fact, that is what we are asking be done, that the NHS be validated through the planning process. We include in that, by the way, the congressionally-designated routes as well as modifications in the future. We recognize that the congressionally-designated routes and STRAHNET are things over which the metropolitan planning process can probably make no change. Nevertheless, other segments of NHS, to make sense as an entire system, have to be related to the congressionally-designated segments and STRAHNET and we think that the planning process is the way therefore to validate the entire system and to make subsequent modifications into one whole fabric.

Also, the NHS is obviously a huge portion of our future plans for transportation and to have it outside the planning process flies in the face of the fundamental initiative of ISTEA in setting up planning.

In sum, we have three basic suggestions. One, validate the NHS routes through ISTEA's planning process. Two, provide that all projects and activities to be funded on the designated routes and any modifications in the future go through the planning process. Three, make clear that the public participation process should apply to NHS.

We thank you for your attention and for your patience throughout this long day, Mr. Chairman and members.

Mr. RAHALL. Thank you.

Mr. Poirot?

Mr. POIROT. My name is Jim Poirot. I am President of the American Society of Civil Engineers.

I want, first, to thank you and the subcommittee for holding these timely hearings and even offer a statement of appreciation for the commitment of the entire committee on bringing to the attention of the public this broad issue of public works infrastructure.

ASCE is a unique organization. We are 115,000 members, the oldest engineering society in the United States, organized in 1852, and our membership is made up equally of engineers in government, civil engineers in private practice, civil engineers in research and academia. So we feel our positions are true consensus positions.

I want to make a brief statement on the support of the authorization of the National Highway System. Data has been presented in our written testimony and also stated earlier today but maybe the most important summary statement could be that with only 4 percent of the Nation's public roads in the system, nevertheless, that constitutes 40 percent of the total highway traffic, 70 percent of the total truck traffic, and 80 percent of the tourism traffic. We feel it is vital that the National Highway System be authorized and place priority on these roads.

ASCE also is in support of full funding of ISTEA. We feel the Federal government should also incorporate innovative financial techniques such as Government-backed bonds and tax-exempt government bonds and State revolving funds.

I want to address six related items today. Five of them I will just mention briefly and the last one, the issue of guarantee and warranty which was brought up earlier in this hearing, I'd like to elaborate some on.

The first issue is that ASCE supports the concept of a capital budget which separates investment needs from operation and maintenance needs. We feel this truly provides for planning of capital funds and capital projects.

We also support continued Federal commitment to research and innovation. We feel that commitment and investment in research fosters productivity and reduction in capital costs; cost reduction in maintenance, operation, and structural integrity and; in fact, adds to the public safety.

An example of innovation is the recent, what I almost call an explosion of, use of composites in highway and bridge construction. We feel evolution of composites would be a good example of how to cut these costs and add durability.

Another is that we at ASCE strongly support the metrication system. We would urge and recommend that the metric system be used on all signs and that this be provided for in the legislation.

We also support selecting engineers on the basis of quality. There is a strong and proven history of the value of selecting engineers on other than a low bid system which undermines project quality and ultimately increases construction and maintenance costs. Public Law 92–582, known as the Brooks Act, has proven itself. We recommend and urge that system of selecting consultants be maintained.

My last item relates to warranty and guarantees. This concept has been referred to in the past and I know you had earlier questions on the subject. It would allow or provide for the State agencies to use guarantee and warranties. The American Society of Civil Engineers is strongly opposed to such legislation because it provides something contrary to the realities of practice in the design and construction profession.

The first issue is that all of our insurance policies would be void. My insurance policy, and I think those of every other consulting engineer, would be void because it would not allow for any recovery of claims or expenses of claims that would arise out of a warranty or guarantee issue.

Second, it is not an appropriate sharing of risk where, in fact, designers would have responsibilities but have no control over the construction operation or maintenance. We'd be disrupting decades of development of assigning responsibilities through the U.S. among the partners in a construction project.

Our other documents elaborate on these. One is the Engineers Joint Council and these documents have been well utilized and developed over decades to assign responsibilities to the various parties. Another one is the document that I'd like to leave with you. I know it is too voluminous to include in the record. It is a document that was prepared entitled, "Quality in the Constructed

Project, A Guide for Owners, Designers and Constructors." It was prepared by over 50,000 engineers, plus a group of attorneys, insurance representatives and owners in a consensus document that explains how to, in fact, provide quality in constructed projects. Over 25,000 copies are in use and it is the document that is now being updated.

I would suggest that, rather than the guarantee-warranty concept, the partnering concept which was referred to earlier today be incorporated into the legislation. Partnering is a concept where trust and common objectives are established early by all of the parties and results in outstanding projects. My company, through partnering, has had projects that have been built on time, on budget, without a single change order and declared by all parties to have high quality.

I'd like to just quote one statement in this book that refers to quality. It says, "The pursuit of quality is the cement holding the owner, design professional and constructor together in a stable pattern where each supports the other in producing a successful project. All project team members working cooperatively in an atmosphere of mutual trust and understanding, full contract commitments competently and faithfully, deal openly and honestly with all project participants, protect the public health, welfare and safety. Following these precepts, the key members, acting with skill, integrity and responsibility, reflect credit upon individual professions and produce the desired quality and constructed project." I think that creates quality and I'd recommend that the partnering process replace the warranty process. I'll leave this for your use as would be appropriate by the staff and you, Mr. Chairman.

Thank you for your time.

Mr. RAHALL. Thank you.

Mr. MacFarlane?

Mr. MACFARLANE. My name is Les MacFarlane. I'm a Senior Partner with VTN Nevada, a consulting engineering firm which employs 120 people and is located in Las Vegas, Nevada. I am also President-elect of the American Consulting Engineers Council. My colleague next to me, Jim Poirot, had that job several years ago so many of my remarks reflect his thoughts also.

Our organization is the largest organization which represents consulting engineering firms. We represent more than 5,000 independent consulting firms across the United States with about 175,000 employees. We also design over $100 billion a year in constructed public and private projects and our firms range in size from the small, one-person firms on up to corporations employing thousands of very skilled scientists and engineers throughout the world.

I am supported in my testimony today by a coalition within the American Consulting Engineers Council—the Design Professional Coalition. This group represents the kind of unique interests of the large and very prestigious firms within our organization.

I'm pleased to be here today to represent the views of our members on the National Highway System. We commend your leadership, Mr. Chairman, along with Congressman Mineta, in placing a

significant emphasis on the National Highway System. We are excited by the initiative taken by both Congress and the Administration in working to craft a national highway network that focuses a new effort on prudent investment of our public dollars to maintain and expand the Nation's infrastructure.

We also think the support for the U.S.-Mexico corridors within the National Highway System is also extremely important in view of the recent passage of NAFTA. In order to provide the quality and in order to fully reap the benefits of such a system, it is crucial that Congress appropriate the full funding levels requested by the Administration. We strongly believe that quality is an essential component of any effort to significantly improve the operating and physical conditions of our transportation system.

Our organization, in conjunction with the Federal Highway Administration, the American Association of State Highways and Transportation Officials, the Associated General Contractors and others currently serve on a steering committee of the National Quality Initiative. This partnership has been formed to focus attention primarily on the quality improvements within the highway industry.

We firmly believe that a national emphasis on quality of highways is needed, in part, to provide an answer to the questions that will come up in the future surely and that include, is the quality of highways really improving? To attain this quality, among other things, this National Quality Initiative places an emphasis on a key management process which Mr. Poirot alluded to, namely partnering.

We, as the American Consulting Engineers, feel strongly enough about partnering that we have so far written agreements with the United States Army Corps of Engineers and the American Public Works Association, two of our bigger client bases, where we have agreed to use partnering whenever possible in projects that we do for these two organizations.

Quality, of course, was an issue during the debate on ISTEA and it was suggested that warranties and guarantees in contracts for design and construction services would enhance the quality. We believe that the use of such measures would set a dangerous precedent that would adversely impact the design and construction of infrastructure in the United States.

The problem with warranties as they relate to the design process are one, we, as engineers and designers, provide professional services. We don't offer products. Our work is based upon judgment and it is not appropriate to warrant a judgment issue.

The second issue to which Mr. Poirot alluded was our errors and omissions insurance. My carrier consistently will not cover us if we ever sign a contract that has the term "warrant" in it, so we are very, very careful about that. Our clients, once we make them understand that the term "warrant" makes the policy null and void, quickly remove the word. It seems to create a situation where engineers doing work as a matter of public works with public highways without insurance coverage is not good public policy.

The third issue is that small businesses would be driven out. They cannot afford the risk of the warranties. Quite frankly, they would stay clear away from it.

We, as design professionals, are constantly improving the quality of services, that's the way we stay in business, but the fact of the matter is, the owner is the engineer in reality, the owner is the one that sets the criteria as to how the design is going to respond to his needs and how it is going to respond to society. The engineers are just agents of change, quite frankly. The skills that we possess are measured by only one thing and that is that term quality. Of course Congress recognized over 20 years ago by enacting the Brooks Law which provided for the selection of engineering services by quality and once the selection was made, then to negotiate a reasonable compensation and fee for the project.

I'll go on to one other issue, if I could, and that is the multiple audit issue. That is an issue that has been discussed in ISTEA. We would suggest that single audits be the proper method of operating. This has not been carried through. It has been suggested in ISTEA and has caused quite a number of problems with our firms operating.

I will conclude my remarks by thanking you very much for being here today.

Mr. RAHALL. Mr. Pethtel.

Mr. PETHTEL. Thank you very much, Mr. Chairman, ladies and gentlemen.

My name is Ray Pethtel. I am Commissioner of the Virginia Department of Transportation and Vice Chairman of the Commonwealth Transportation Board.

Virginia supports early enactment of the National Highway System and full funding of ISTEA, Mr. Chairman. We applaud your early holding of these hearings.

I am here today though to talk specifically about value engineering as it is carried out in Virginia. I have brought for your information an annual report, a brochure and a statement that you can read at your leisure. Let me say that we are very proud of our Value Engineering Program and its accomplishments since becoming the first State Department of Transportation to implement a comprehensive Value Engineering Program.

Value engineering has saved $39 million over the last 3 years in Virginia, very valuable dollars that we were able to put back into transportation construction and maintenance programs. When we take into account all of the administrative costs, all of the overhead associated with value engineering, and a very aggressive training program, we have provided Virginia taxpayers a return on investment of $30 for every dollar expended.

We had a very good year in 1992–1993, one of those three years when our return was $60 for every $1 invested. We believe these gains are very impressive and our Value Engineering Program continues to be an aggressive one that embraces the value engineering spirit of maintaining quality while simultaneously lowering costs.

The department's history with value engineering has been longstanding and reaches back into the mid-1970s. In 1986, after my appointment as Commissioner, I expanded our VE Program and by 1989, five regional coordinators were employed, an advisory committee was established, and a system to track our recommendations and the effectiveness of the program was established.

In 1990, we became the first State in which value engineering was mandated by law when the General Assembly approved and the Governor signed House Bill 423 which was patroned by then Delegate and now Congresswoman Leslie Byrne of Fairfax, which required value engineering on all projects exceeding $2 million in cost.

Since the enactment of that legislation, we have performed 232 value engineering reviews. Most of those have been on roadway project construction and maintenance activities, but in addition, we have value engineered our road and bridge standards and specifications, we value engineered organizational processes and procedures, building construction plans, and we have assisted several other States such as the State of Maine and a cooperative project with the State of West Virginia, local governments and Federal agencies.

As I said, these reviews have generated $39 million in savings and we think just as important, have instilled in our employees a willingness to continue to challenge the way we do business in an effort to maintain quality and reduce costs.

I thought you might be interested, in the few minutes that I have, to hear about a couple of typical value engineering projects. We carried out one for the United States Army because the road that we were building forced a relocation of their petroleum oil and lubrication facility.

A representative of the Army participated in the study and in the decisionmaking. Eighteen recommendations were made, a total of $352,000 saved, and suggestions ranged from such things as substituting riprap in ditches for paved ditches, alternative erosion control methods, shingling roofs instead of metal roofs, using aluminum gutters instead of copper gutters, eliminating a porch (that was too narrow for a rocking chair), and cutting a gate from 30 feet down to 24 feet.

In Maine, at the request of the Department of Transportation and under the direction of the Federal Highway Administration, we sent a value engineering team of five people to work with a value engineering team in Maine on the Top Sham Brunswick Bypass, a $32 million bridge and bypass project. The project was as much training for Maine DOT as it was a value engineering exercise, but in two weeks, we identified $3.5 million worth of recommendations. Maine ultimately adopted $1.7 million.

We did a very unusual value engineering exercise of our public involvement process. We have hundreds of public hearings every year. We wanted to find out if we could enhance the effectiveness and accessibility of citizens in the public involvement process and we put together a value engineering team that came up with recommendations on how to improve and overhaul that process.

Finally, a study of I–64/U.S. 17 interchange in the City of Newport News was a $9.1 million reconstruction project. We saved $500,000 by simply recommending that instead of reconstructing a ramp and loop, that they overlay it with new pavement instead.

Thus far, 1300 individuals have been trained in value engineering. These individuals include 1,000 in my department and over 300 from local and other governmental agencies.

I'd be delighted to answer any questions you might have about this process, Mr. Chairman.

Mr. RAHALL. Thank you.

Mr. Pethtel, you speak of value engineering, and I speak of value representation when I recognize the next member of this subcommittee. She is a very valued member of the subcommittee and full committee and well-respected for her work in the Congress. I recognize the gentlelady from Virginia, Ms. Byrne.

Ms. BYRNE. Thank you, Mr. Chairman.

I have a formal statement that I would ask to be entered into the record.

I would like to say there are two things in my service to the Commonwealth of Virginia General Assembly that I take particular pride in. First is getting trucks to cover their loads so it doesn't dump stuff on your car and on your windshield. That was kind of landmark legislation. The next one is the value engineering which I will say that Commissioner Pethtel worked very closely and over this process, there were a lot of questions whether it should be mandated or not mandated, but I guess the proof of the pudding is in the eating. The fact is that by this process of value engineering, we have been able to save money.

The first thing I did when I came to Congress was to look for a way to implement this on a national level I am so committed to this process. So as you know, Mr. Chairman, I have introduced H.R. 2014 which is the Value Engineering Better Transportation Act. I highly commend Virginia's experience on value engineering to this committee.

If prologue is history, in this case, we look at the ISTEA and in the National Highway Bill, it tells us that we have more needs than we have money. That has always been the case. What value engineering will do for us, I believe, is allow us to get more from the money we are spending. So there is a set of incentives. It is not going to cost any money in terms of those who use value engineering. If you save money, all the better. Mr. Pethtel, I'm sure, can come by when we're talking about this more in depth as the committee gets started on it.

I commend the panel and Mr. Pethtel in particular for looking at planning and design as a way of getting the biggest bang for our taxpayers' buck.

Thank you, Mr. Chairman. Your stamina has been a real joy to watch in this committee.

[Ms. Byrne's prepared statement follows:]

LESLIE L. BYRNE
11TH DISTRICT, VIRGINIA

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CONGRESSWOMAN LESLIE L. BYRNE

SUBCOMMITTEE ON SURFACE TRANSPORTATION
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

MARCH 4, 1994

Mr. Chairman:

I would like to thank you for holding these continued hearings on the National Highway System.

As we look into some of the policy aspects of the NHS, I would like to bring to my colleagues' attention a tool wich should be included as policy in the NHS, which will give our states the ablity to help then develop safer and more cost-efficient products. This tool is Value Engineering.

Value Engineering, or V.E., is a time-tested technique that creates more efficient products. V.E accomplishes this by evaluating the design of a project, identifying the highest quality components and finding the most cost-efficient means to alter or eliminate components that are wasteful and inefficient.

To bring this technique to the states, I have introduced H.R. 2014, the Value Engineering Better Transportation Act. This legislation gives states the option of using Value Engineering in their federal highway projects.

By encouraging the use of V.E, we will create a win-win situation. When we increase the federal project share to state transportation departments that use Value Engineering, the fiscal burden on the state is reduced.

And when a project's overall cost goes down through Value Engineering, the financial burden on the federal government is reduced. Value Engineering lets all levels of government spend less, and that saves taxpayer dollars.

This legislation does not mandate regulations nor does it penalize states that choose not to use Value Engineering -- but it does provide local, state and federal governments with an incentive to save money while creating a better product.

It is no wonder that the National Taxpayer's Union has estimated that V.E could save our nation over a billion dollars a year in transportation costs alone. Those are savings we can use to build more bridges, roads and airports, which in turn increases our nation's ability to compete in the global marketplace.

I have firsthand knowledge that V.E. works. As member of the Virginia General Assembly, I was able to pass legislation similar to H.R. 2014 for the Virginia Department of Transportation. This legislation is saving the taxpayers of Virginia more than ten million dollars each year.

Later in this hearing we will hear from Ray Pethtel, Commissioner of the Virginia Department of Transportation, on the success the state has had with V.E. I would like to take this opportunity to thank Mr. Pethtel for being here today and for sharing his experiences with Value Engineering.

In closing, I would encourage my colleagues to look at the benefits that Value Engineering could provide to states that apply it to transportation projects and support including it as an addtion to the policy portion to the NHS.

In these days of tight budgets, we are constantly looking for the biggest bang for our buck. Value Engineering is clearly an excellent way to do this.

Mr. RAHALL. Thank you, Leslie.

Mr. Pethtel, I notice also a very familiar scene in the very front of your brochure on value engineering, the big Walker Tunnel. It happens to be right along the line of my congressional border in southern West Virginia, the Big Walker and East River Mountain Tunnel, so I see it quite often and see the effects of what you are talking about here.

Mr. PETHTEL. That, obviously, Mr. Chairman, was the project we had the cooperative effort with West Virginia and it was a very good one. We appreciate their assistance. You have a good staff there.

Mr. RAHALL. I have no questions. I appreciate very much again the panel's patience in being with us all day and your testimony this evening. You have been very helpful to us.

I'd like to ask the next two panels to come forward at this point.

The panel is composed of Mr. Jim Bensberg, Washington Representative, American Motorcyclist Association; Mr. Wayne T. Curtin, Vice President, Government Relations, Motorcycle Riders Foundation, Washington, D.C.; Ms. Susan Perry, repeat performance today, this time she's the Vice President, Government Affairs, American Bus Association on behalf of the Travel and Tourism Government Affairs Council; and Mr. Roy W. Muth, Chair, The Coalition for Recreational Trails, CRT, Fairfax, Virginia.

Jim, welcome. You may proceed and go first.

TESTIMONY OF JIM BENSBERG, WASHINGTON REPRESENTATIVE, AMERICAN MOTORCYCLIST ASSOCIATION; WAYNE T. CURTIN, VICE PRESIDENT, GOVERNMENT RELATIONS, MOTORCYCLE RIDERS FOUNDATION; SUSAN PERRY, VICE PRESIDENT, GOVERNMENTAL AFFAIRS, AMERICAN BUS ASSOCIATION ON BEHALF OF TRAVEL AND TOURISM GOVERNMENT AFFAIRS COUNCIL; AND ROY W. MUTH, CHAIR, THE COALITION FOR RECREATIONAL TRAILS

Mr. BENSBERG. Thank you, Mr. Chairman, and I say that very sincerely because I can tell you that we always can count on a fair hearing before your subcommittee.

I always enjoy coming to these hearings and testifying in your committee because without fail, I always learn something. For example, today, I was chagrined to learn that the American Motorcyclist Association and its 200,000 members represent what is known in some quarters as an "antisafety group" because we have the temerity to question the value of mandatory helmet laws for adults.

I would just like to say to the committee, and for all those here gathered, that no one is more concerned about motorcycle safety than the AMA and no one, I would challenge, has done more to promote motorcycle safety.

Never have so many focused on such a small problem, Mr. Chairman. I say that because if you focus in on the so-called problem of motorcycle fatalities and injuries with a microscope, it is very easy to point to a series of statistics on one side of the argument and a series on the other which tend to counterbalance each other. The best that you can come away with is confusion.

It occurs to me that in the big picture, if you examine this whole situation in America, its National Highway System and all the

other roadways that we travel on, motorcycle accidents and fatalities are a very small number relative to the whole.

I was interested to learn that this week for the first time in the committee's history, the Committee on Merchant Marine and Fisheries has decided to promulgate rules via the Coast Guard to require those under age 12 for the first time to wear life vests. We know that nearly double the number of accidental drownings take place each year in this country than motorcyclist fatalities. We know, for example, that over double the fatalities are recorded by pedestrians on our Nation's highways. This is just an unfortunate fact that no amount of legislation seems to be able to cure.

So that is why our members have asked us to testify today to try to bring some clarity to this issue and bring it into perspective. The fact is that since 1980, motorcycle fatalities have dropped 54 percent and there is no other group of motor vehicles in this country that can boast that same claim. This is in spite of the fact that there have only been five net States since 1980 which have changed their helmet laws to require them for all motorcycle operators and passengers.

I would say to those who label us as an antisafety group that we must be in some very good company when 119 of your colleagues, members of Congress and another 28 U.S. Senators, some of whom testified before you today, seem to feel the same way that we do. Let me make one thing clear, Mr. Chairman, we do not oppose compulsory laws for minors. We encourage all cyclists, not just our 200,000 members, but the entire population of some 8 million motorcyclists in this country, to wear helmets when they operate a motorcycle. We just believe that the approach that has been taken in the past and the one that I think you, as Chairman of this committee, share with us is that it is a finger-wagging, ruler across the knuckles approach. Most motorcyclists and well-thinking individuals who are ordinarily responsible citizens and who have no other sin in their life than to travel sometimes on two wheels instead of four, naturally reject that approach, Mr. Chairman.

I would just say in summary, and you have the benefit of our testimony for the record, that in the absence of any clear evidence, and the only fact that I believe today that is relevant, presented thus far, is that since 1980, we have cut our fatalities by 54 percent without the aid of helmet laws.

There are currently 25 States, as you know, which are out of compliance with the sanctions in ISTEA. Clearly those State legislatures believe that the citizens should have a voice in this debate.

In closing, we would just ask you to include the language of Representative Snowe's H.R. 799, which would alleviate our concern with ISTEA.

Thank you very much.

Mr. RAHALL. Mr. Curtin.

Mr. CURTIN. Thank you, Chairman Rahall. I appreciate your inviting me to testify here today.

I represent the Motorcycle Riders Foundation and our members and State member organizations. I am here primarily today to ask you to include Congresswoman Snowe's legislation, H.R. 799, in the National Highway System legislation as it moves through this committee.

There has been a lot of talk today about a need for better funding of ISTEA and the projects there. As Rep. Olympia Snowe indicated earlier, there are States that are facing a total of $53 million in sanctions under this Section 153. Repealing the penalties of Section 153 would free up that $53 million for those States to use in highway construction projects as they need.

We think the National Highway System legislation is an appropriate bill to deal with this issue. Both the National Highway System and the Section 153 penalties were created under ISTEA and the National Highway System Fund is one of the three penalized funds under the mandates of Section 153.

The supporters of helmet laws have mainly cited trying to control health care costs as a primary reason for these mandates. I'd like to question the soundness of the health care policy that necessitates mandated restrictions or bans of recreational activities to control health care costs. I don't think that is in the best interest of this country and although there is a need for health care reform in dealing with health care issues, that [health care] should not dominate all other issues in society, especially not those about freedom, liberty and peoples' pursuit of happiness.

One thing I would like for you to inquire about some time with the sponsors or supporters of these mandatory helmet laws is they talk about how much this is going to save the States and the Federal Government. I'd like for them to be able to cite where any State budget has been cut because a mandatory helmet law has been put in place. I don't think they will be able to provide you with that.

They, [supporters of helmet laws] also like to cite the fact that motorcyclists don't carry adequate insurance. I've cited a couple of studies in my testimony, mainly one of the University of North Carolina which found that motorcycle operators carry insurance at the same rate as the general patient population and in fact, "This study also found that motorcyclists were dependent on Medicare-Medicaid only 8 percent of the time compared to 14 percent for all of the road trauma victims. So motorcyclists are doing better than the general patient population in that sense.

I think that is a significant fact in that motorcyclists are finding it harder and harder to get insurance. It is not that we don't want insurance, but insurance companies are now going to employers and telling them if you want to cut your employee health care benefits costs, eliminate coverage from motorcycle accidents and we'll cut your health care rates. So what is happening is working Americans who have insurance through their companies or through their unions are now being excluded from coverage by the very insurance companies that claim we [motorcyclists] don't carry coverage.

Also, in many States, motorcyclists cannot buy personal injury protection insurance. So we don't even have all the vehicles available to us to get insurance that most motor vehicle operators do, yet we are still being insured at the same rate when it comes to accidents. I think that is significant.

One of the other policy issues about ISTEA that I think we should take a look at is the issue of flexibility. ISTEA was haled as having a new approach that would allow States more flexibility

with how they spent their highway construction funds. The mandates in Section 153 is one area that will allow the States no flexibility. They either have to pass a mandatory helmet law or their funds get diverted. A lot of the supporters of this claim it is not supposed to be punitive, but I would contend that first off, it is labeled penalties in the original legislation and when you have a State like Alaska who was only allocated a little over $500,000 last year to run their 402 programs, and will be facing $5 million in funds transferred into that program, it is going to overload the program and it is not responsible legislation in that sense. It is punitive to the State of Alaska because they can't responsibly spend $5 million on 402 programs. Yet their roads are going to suffer because of that.

Jim [Behsberg] indicated earlier the tremendous drop in motorcycle fatalities over the last 10 years. I would also like to cite that we feel a significant reason for that is the reduction in accidents over the last 10 years has fallen by 53 percent.

One other thing I would like to reference is the fact that for the last 6 years, when you look at the accident rates or the fatality rates per 100 accidents, which is the only statistic that shows helmet use in accidents, we find that the States without helmet laws have rated higher safety rates than States with helmet laws. The last 6 years of the 10 safest States to ride in, either 6 or 5 of those States every year have been without mandatory helmet laws for adults.

You have the rest of my testimony in the record, Mr. Chairman. I will conclude at this time and be available for your questions.

Thank you very much.

Mr. RAHALL. Thank you.

Susan? I believe I recognize another West Virginian in the room. Would you introduce Aubrey to the rest of the subcommittee?

Ms. PERRY. Yes. I made a little note to introduce Aubrey to the subcommittee and I will do that.

I am Susan Perry—still am Susan Perry, Senior Vice President, American Bus Association and testifying today here, now, tonight in my role as Chairman of the Travel and Tourism Government Affairs Council's Working Group on Transportation.

With me indeed is a West Virginian, Mr. Aubrey King, who is Executive Director of the Travel and Tourism Government Affairs Council.

We appreciate—Aubrey and I do—this opportunity to testify in support of the National Highway System.

In the U.S., travel and tourism generated in 1993, an estimated $397 billion, almost $400 billion in expenditures, 6.3 percent of the Gross National Product. It was once again, the Nation's leading export industry, earning $74 billion in expenditures from 46 million international visitors, while 45 million Americans were traveling abroad spent only $49 billion creating a $25 billion balance of trade surplus.

In terms of gross receipts, travel and tourism is the Nation's third largest retail industry behind only automotive dealers and food stores. The six million direct jobs provided by travel and tourism rank it second only to health services in terms of employment. Another 5.3 million jobs are created indirectly.

States and communities throughout the country are increasingly striving to take advantage of the significant role that travel and tourism plays in local economic development. It is the first, second or third largest employer in at least 34 States; it is the largest employer in 11 of those States.

Travel and tourism jobs are increasing rapidly, with industry employment in the last 10 years increasing at a rate more than twice that of the rest of the economy and forecast to grow in excess of 30 percent in the next 12 years.

Increasingly, these are top quality jobs as more than 650,000 executive jobs exist in all segments of travel and tourism today, and the average travel and tourism employee benefits from growing services sector hourly earnings that are outpacing earnings increases in all but a few of the private industry sectors.

It is evident that the capacity of the travel and tourism industry to continue to grow and to generate high quality jobs is directly related to the capacity of our Nation's transportation infrastructure to function efficiently and effectively.

Travel and tourism depends on all modes of transportation but none is more important than the highway system. Travel and tourism strongly supports coordinated intermodal transportation networks because so many trips are likely to involve flying, riding, driving in both cars and buses, I might add, as well as both rail and water travel. However, safe and modern highways must remain the backbone of our overall transportation infrastructure. Approximately 80 percent of all travel involves highway use.

Travel and tourism industry was gratified when Congress enacted ISTEA. That historic highway bill was a landmark for the travel and tourism industry as it explicitly gave unprecedented recognition to this industry and it provided a number of opportunities to have its views considered in the formulation of surface transportation policy at all levels of government.

For travel and tourism, however, and for the Nation, nothing in ISTEA was more significant than its provision for an NHS. Since enactment of ISTEA, the Travel and Tourism Governmental Affairs Council has consistently supported timely action by the Federal Highway Administration, the Department of Transportation and Congress to establish the NHS.

Less than a year ago, last April 28th, we testified before the subcommittee on the implementation of ISTEA and at that time, we said "It is vitally important to the Nation, that the complete NHS called for by ISTEA be completed expeditiously." In the past 6 months we have met with top White House staff, with Transportation Secretary Peña, and with Federal Highway Administrator, Rodney Slater, in support of the system.

While the highest priority should be given timely enactment of the NHS, we also urge Congress to consider some additional legislative changes or clarifications in ISTEA. The Council specifically supports the following proposals.

The transportation enhancement section of ISTEA should be amended to allow the construction and renovation of State highway information centers to be eligible for funding as transportation enhancements. While annual State transportation plans are required by ISTEA to give consideration to the need of recreational travel

and tourism, metropolitan planning organizations do not have such a requirement in ISTEA regarding their transportation plans. We urge that this anomaly be corrected.

With regard to the National Scenic Highways Program created by ISTEA, two problems have arisen and may require some clarification. First is the problem presented by ISTEA's minimum allocation formula which has the unintended effect of creating a disincentive for so-called donor States to apply for scenic byway grants. Second is the problem related to outdoor advertising where the Federal Highway Administration has interpreted ISTEA as allowing the prohibition of outdoor advertising along an entire scenic byway.

We believe the correct interpretation would allow such outdoor advertising as permitted by the Highway Beautification Act, i.e., such advertising would be allowed in areas zoned commercial or industrial or in areas where there is a bona fide commercial or industrial activity. We believe that legislative language clarifying both these issues would be helpful.

We clearly recognize establishment of the system is obviously of vital importance to many industries and interests, including all of the manufacturers who must ship their products economically on the highways, trucking companies who need safe and efficient highways, and the automobile manufacturers and construction interests whose profitability is directly related to the highways.

No industry, however, will be more directly affected by the NHS than travel and tourism. No group will be more affected than this industry's 6 million employees and those additional millions likely to be employed in future decades by the growth of travel and tourism, from those working in the thousands of businesses providing products and services to travelers, to those working for other modes that depend on swift modern highways to transport their customers or some portion of their trips.

Thank you.

Mr. RAHALL. Mr. Muth.

Mr. MUTH. Mr. Chairman, my name is Roy Muth and I serve as Chair of The Coalition for Recreational Trails.

TRT members now number 27 and they are primarily national organizations which represent the interests of all recreational trail users, both motorized and nonmotorized recreationists. The Coalition for Recreational Trails was formed in January of 1992 for the sole purpose of ensuring adequate funding for the National Recreational Trails Funding Program. User pay, user benefit philosophy, the basis of the Highway Trust Fund itself, is also the basis for this Trails Fund Program which is administered by the Secretary of Transportation.

We appreciate the opportunity to testify today and to explain why we believe the NHS legislation should include amendments for the National Recreational Trails Fund Act.

A quick look at the history of funding for the National Recreational Trails Funding Program reveals our problem. Although the original legislation called for funding of the Trail's Trust Fund at an annual level of $30 million, since passage of the Act, the following amounts have been appropriated—in fiscal year 1992, zero

dollars; in fiscal year 1993, $7.5 million; and in fiscal year 1994, again zero dollars.

We have also had other problems related to funding which have taken a number of other forms. Until as recently as this week, the status of the National Recreational Trails Trust Fund was uncertain. It now appears that the Treasury Department took appropriate action to establish the fund in October 1992.

Also, funds allocated from fiscal year 1993 appropriations which were not obligated by the States by October 1, 1993 were lost. Finally, the Administration's fiscal year 1995 budget does not include funding for the National Recreational Trails Funding Program.

The net result of all of these developments has been confusion and uncertainty in the States. Promising improvements to State trails programs have been put on an indefinite hold.

Mr. Chairman, my statement contains a number of endorsements from individuals who are involved in the administration of this program but in the interest of time, I'll not read any of them this evening.

I'd like to go to my next point which is to say that we are informed that the solution of the program's funding problem is to amend the National Recreational Trails Fund Act to provide the same kind of spending authority given to other programs funded by the Federal Highway Trust Fund. I'm referring to contract spending authority.

We are also aware there is more than one way this change would be affected but regardless of the precise legislative approach used to obtain contract authority, it is absolutely essential if this important program is to continue.

I have a number of other recommendations I would make to the subcommittee. I will not introduce them now; they are a part of my statement but I'd be more than happy to take questions on them if you see fit.

Thank you, Mr. Chairman.

Mr. RAHALL. Thank you very much.

Aubrey, did you want to make a statement?

Mr. KING. It would be beyond me to add to what Susan has so eloquently said, Senator.

I would say that the principle that proves I am a West Virginian is that I think it's only a hearty few of us who are able to survive to this point in the evening. [Laughter.]

Mr. RAHALL. I do appreciate the panel's patience in being with us all day and testifying this evening.

I have just one comment, Susan, on one of your recommendations—the one about inclusion of travel and tourism in the MPOs' planning process. I believe we passed that as part of the ISTEA technical correction bill last year, if I'm not mistaken.

Ms. PERRY. Yes, and hope that will carry over into whatever might get passed by the other body as well this year.

Mr. RAHALL. That concludes today's hearings. I appreciate again your testimony.

[Whereupon, at 7:00 p.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

Statement of
American Road & Transportation Builders Association
To

Subcommittee on Surface Transportation
Committee on Public Works & Transportation
U.S. House of Representatives
Washington, D.C.

March 3, 1994

Presented by
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Testimony of
American Road & Transportation Builders Association
Before
House Subcommittee on Surface Transportation
Washington, D.C.
March 3, 1994

Mr. Chairman, Mr. Petri, members of the subcommittee. I am James Ahern, president of Ahern and Associates, a highway contracting firm located in South Charleston, West Virginia, and a member of the Board of Directors of the American Road and Transportation Builders Association. It is a privilege and a pleasure for me to share with you ARTBA's thoughts on the National Highway System and related issues.

I am particularly pleased to appear before a body chaired by a fellow West Virginian. Mr. Rahall, I bring with me this morning the thanks and the appreciation of the construction industry and the people of West Virginia for all you have done to help our state develop the transportation system we need. Together with Representative Wise, you give our state an effective one-two punch on this committee, whose programs are so important to us in building a strong economy.

Mr. Chairman, the American Road and Transportation Builders Association was founded in 1902 and is the only national association devoted solely to the planning, construction and operation of transportation facilities of all types. ARTBA strongly believes that the federal government has a central role in developing a strong, efficient national transportation network and has worked for nearly a century to ensure that its programs are properly structured and adequately funded.

Mr. Chairman, it is impossible to overstate the importance of the National Highway System to the United States. Members of this committee, Secretary Pena and others have stated on many occasions that it is the backbone of our national transportation network. Although it comprises only four percent of our country's highway mileage, the network carries a disproportionate share of its commerce and personal travel.

In recent months, the National Highway System has taken on additional importance with adoption of the North American Free Trade Agreement (NAFTA). That agreement to commercially link together three great nations of our continent cannot be successful without the physical links that will allow us to carry out the exchange of commerce envisioned.

The National Highway System is essential to the future strength of our national economy and therefore has rightly been designated as the major focus of federal investment in surface transportation. For that reason, the Congress must assure that the National Highway System is able to fulfill the role which you have assigned to it.

We are pleased to note that many others share our view. Just this week, for example, the U.S. Chamber of Commerce Board of Directors approved a policy statement calling for the timely approval of an NHS designation bill. ARTBA is proud to serve as an active member of the Chamber's Transportation Infrastructure Task Force.

Despite what some may think, highways will remain the dominant mode of commerce and movement for the American people in the foreseeable future. This does not mean that we should ignore other forms of transportation, each of which has a role to play in a diversified, intermodal system.

Bur the facts are that highways today carry 82 percent of all intercity traffic and 94 percent of urban commuting traffic. Seventy-eight percent of all freight, by value, travels by truck. Even without change in these percentages, expected growth in traffic volume requires constant attention to the ability of the nation's highways to perform their tasks.

For 38 years, we have concentrated on building the Interstate Highway System, often referred to as the greatest public works project in history. Construction of the Interstate highways is now virtually completed, and enactment of the Intermodal Surface Transportation Efficiency Act in 1991 signaled the transition to the post-Interstate era. That legislation moved in bold new directions to fashion a transportation program that will carry America well into the 21st century.

ISTEA (ice tea), as it is called, provides greater flexibility in meeting transportation needs, and it extends federal assistance into areas never before eligible to participate in the federal highway program. But, and I repeat this for emphasis, ISTEA called for creation of the National Highway System to be America's basic mobility network. For that reason, we must not allow the temptation to strike out in new directions to distract us from the fact that primary attention must be directed to the National Highway System.

As we focus on the National Highway System, it is important to remember what this system is and what it is not. Regrettably, inaccurate statements about the system are circulating and could, if believed, contribute to confusion and greatly complicate the task before Congress.

Federal Highway Administrator Rodney Slater addressed some of these myths about the NHS in his appearance before the subcommittee last week. ARTBA believes it is crucial that these distortions not be allowed to take root, so I will take this opportunity to set the record straight.

Primarily, the National Highway System is not intended to be a larger replication of the Interstate System, in other words, an interconnected network of multi-lane, controlled access freeways. Nor is it likely to involve significant new construction on new rights-of-way.

It has been stated from the beginning that only about two percent of the 159,000 miles proposed for the NHS will involve new construction, presumably to fill gaps and improve alignments. The remainder of the recommended system consists of existing roads. The emphasis will be on improving these routes.

The illusion that these improvements will turn into another "new" freeway network also is without foundation. The Department of Transportation has stated on numerous occasions that much of the proposed NHS mileage in rural areas consists of two-lane roads and probably will remain so. With growing traffic demands, additional capacity will be needed in some areas, but the NHS is not planned as a duplicate of the Interstate system.

It is worth noting that 118,834 miles, or 75 percent, of the proposed National Highway System are rural roads. These highways serve vast portions of the nation and are the vital links between rural and small-town America and the rest of the country. In many instances, these highways provide the only type of transportation in rural areas and are the sole means of movement for people and business. In addition, they are the connectors between urban areas and with Canada and Mexico.

In short, Mr. Chairman, the rural portions of the NHS may not all be multi-lane freeways serving large population concentrations, but they are vital to the success of the entire network. For that reason, they should receive special attention with respect to planning, funding and operations as the program is implemented.

Mr. Chairman, *ARTBA believes that legislation to designate the National Highway System should be enacted this year.* There is no logical reason to wait another 18 months, as allowed under law, to do what can and should be done now.

The importance of the National Highway System is such, however, that Congress should not be content with just approving the routes. There are other steps which should be taken to strengthen the commitment of ISTEA to make this new network our road to the future. Therefore, ARTBA encourages that the committee also include in the bill provisions to:

- Require that any construction or reconstruction on the National Highway System be carried out under specifications that, with proper maintenance, will result in a roadway life span of at least 40 years.

Recent, highly-publicized studies of European road construction have brought attention to durability and the long-term cost effectiveness of longer lasting roads. In the effort to speed development of the Interstate system, roads were designed with a 20-year life span. While that policy resulted in more rapid initial construction, one of the major challenges we now face is the costly reconstruction of many Interstate segments that have exceeded their design life.

There is no secret to building roads that will be productive for 40 or more years. Thicker bases, better drainage in foundations and thicker surfaces can produce longer-lasting roads that require less expensive maintenance. The use of life-cycle cost analysis also should be examined as a tool for evaluating the advantages of building highways with durability greater than under past practices. Life-cycle costing offers the opportunity to quantify both economic and non-economic benefits of various construction techniques.While longer-lasting highways cost more to build initially, maintenance is less expensive and the closure of roads for rebuilding or maintenance is reduced.

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Highways designed and constructed to provide service for at least four decades are feasible and wise investments. All it takes is a financial commitment to roadway durability. The National Highway System is the place to begin that commitment.

- Delete the authority in ISTEA to transfer funds designated for the National Highway System to other programs.

Much of the National Highway System is in need of major repair or replacement. ISTEA authorized about $6.5 billion a year for the system, including funds for maintenance of Interstate highways. That is approximately one-third of the amount authorized for all highways, and it is clearly inadequate.

According to an analysis of Department of Transportation data, the Competitiveness Policy Council found that an investment of $66.3 billion is currently needed to improve just the bridges on the National Highway System. An additional investment of $145.4 billion is necessary to eliminate pavement deficiencies on the system over the next 15 years. Actually improving capacity and performance of the system to meet anticipated traffic demand would cost considerably more.

The cost of improving NHS routes will be even higher if this country adopts--as it should--a policy of constructing and reconstructing these roads to have a minimum 40-year lifespan. This is yet another reason why every available dollar should be committed to the NHS and not diverted to other uses.

With these great needs, funds should not be moved to other categories.

- Transfer revenues from the 4.3 cents-per-gallon of the federal gas tax enacted last year for deficit reduction to the Highway Trust Fund.

Given the enormous need for all highways, this action would increase our ability to move more aggressively toward eliminating the deficiencies of the nation's transportation system. In its 1993 report on the condition of the nation's highways, the Department of Transportation said the average annual cost to maintain 1991 conditions on roads and bridges was $51.6 billion, but that total capital spending by all levels of government reached only $36.1 billion. *That is a gap of $15.5 billion just to keep things the way they were two years ago!* (See attached table.)

The same report set the cost of completely eliminating the identified backlog of highway and bridge needs at $290 billion.

Based on 1989 needs information, the Competitiveness Policy Council last year said an additional investment of $10 billion a year is needed "well into the future" to reduce the backlog of deficiencies on NHS routes alone. The council endorsed an increase in the federal gas tax to fund such an expanded investment in the nation's surface transportation facilities.

• Emphasize worker and motorist safety in the construction and reconstruction of National Highway System routes.

ARTBA believes that building safety into the National Highway System should be a top objective of the Congress. More than 39,000 people were killed in motor vehicle accidents on U.S. roads during 1992. Highway-related deaths and injuries cost American society an estimated $137 billion per year. Clearly, highway safety should be a paramount public health interest. This should be especially true in a year that the Congress and the nation are focusing needed attention on health care costs.

The good news is that experience has proved that emphasizing safety features in the design, construction, reconstruction and operation of highway facilities does save lives. The U.S. highway fatality rate has dropped 60 percent since 1971, from 4.5 per hundred million vehicle miles traveled, to 1.8.

ARTBA believes a priority of the NHS legislation should be to eliminate hazards and improve safety at all rail-highway grade crossings on the system. We also encourage requirements that mandate that any reconstruction project on the system should contain, as a component, restoration of safety features in a way that enhances the level of safety performance.

Since the NHS will be largely a network of existing roads, work to improve or maintain these routes will increasingly be done under traffic conditions. The safety of our industry's employees and motorists in these construction work zones is of special concern to ARTBA.

We believe the NHS legislation should ensure that effective traffic control plans are implemented and traffic control devices and other appurtenances are properly maintained and sited at all NHS work zones.

Experience has shown that public awareness programs aimed at motorists can help to reduce the number of accidents in these work sites. We encourage the Congress to give the U.S. Department of Transportation a mandate in this legislation -- along with proper financial resources -- to create and implement in cooperation with the states an ongoing public awareness program with the goal of eliminating accidents and deaths at NHS reconstruction, rehabilitation, or repair sites.

Further safety gains could be made by adopting Interstate signage and pavement marking standards for the NHS and increasing pavement stripe width to eight inches to improve night visibility. At the same time, jurisdictions should be provided incentives to enforce compliance with Part VI of the Manual of Uniform Traffic Control Devices in maintenance, construction, utility and emergency operations.

• Include in the NHS bill the technical corrections to ISTEA that have twice been passed by the House of Representatives.

ISTEA provided new opportunities for private sector participation with state and local governments in the financing and developing of needed highway, bridge and tunnel improvements. The Act breaks with the past by allowing states to blend toll and traditional motor fuels user fees providing a potentially significant source of additional financing for these much-needed projects. The toll and public-private venture provisions of ISTEA also enable states and private parties to enter into cost-sharing agreements and new forms of facility ownership.

Although the toll and public-private partnership provisions of ISTEA represent a bold and forward thinking departure from the status quo, this subcommittee and other members of the House recognized last year--and the year before--that something more was needed to get this new phase of the nation's toll road program off the ground.

Specifically, the House overwhelmingly approved changes to the ISTEA toll and public-private venture provisions in the technical corrections bills. These changes would, among other actions, more fully open the door for the financial participation of pension funds and other entities, clarify the meaning of "reasonable rate of return" and other key terms and state with greater specificity the environmental and other requirements of the optional loan program.

There are other approaches that ARTBA believes merit support. For example, federal funds should be permitted to be used as loans or matching funds for all public-private venture transportation projects that have a dedicated revenue source. Federal/state revolving loan funds should be established to underwrite the pre-development and development phases of transportation construction projects.

Furthermore, independently operated federal and state revolving loan funds should be considered to provide subordinated capital and other credit enhancements to facilitate the sale of revenue-generating projects' senior debt in the capital markets.

ARTBA firmly believes that projects undertaken with proceeds from loans or repaid loans should be carried out under the competitive bidding process applicable to other activities involving the use of federal financial assistance.

These provisions would help promote public-private partnerships in transportation construction.

In another area, ARTBA has long been concerned with eliminating artificial barriers to the efficient award of transportation contracts and to competition by companies of all sizes. We urge the committee to address these issues through the NHS legislation.

ARTBA specifically urges inclusion of the "Contracting for Engineering and Design Services" provisions which have twice been adopted by the House -- in ISTEA and in the Technical Corrections Act (H. R. 5752.)

This language, intended to be applied to both federal highway and transit programs, would expedite the completion of projects by speeding up the award of design and engineering contracts

through elimination of duplicate and redundant pre-award audits for companies having current audits carried out in accordance with the Federal Acquisition Regulations. These redundant audits create delays and waste millions of taxpayer dollars which can better be spent for vital infrastructure.

Providing a uniform standard of costs, based on the cost principles contained in the Federal Acquisition Regulations, will eliminate artificial barriers to firms wishing to compete in more than one state and afford those procuring such services a consistent measure of what they are getting for their money. Elimination of arbitrary ceilings on overhead, salaries and other legitimate business costs will level the playing field and eliminate the preoccupation of some with overhead as an illusory measure of comparative costs.

- Encourage the development and implementation of Intelligent Vehicle Highway Systems.

ARTBA believes that every effort must be made to ensure that highway users receive maximum benefit from every dollar invested in highway capital improvements, particularly on a network as important as the National Highway System. To help achieve this goal, greater emphasis must be placed on public and private highway research and development programs and technology transfer activities that can bring new products, techniques and ideas quickly into the field.

ISTEA provided very significant federal support for development of technology to make Intelligent Vehicle Highway Systems (IVHS) a cost-effective, safety enhancing, congestion relieving reality. We believe the urban portions of the National Highway System are a logical place to focus IVHS research and technology implementation. We encourage the Congress to include language in the NHS legislation to create this focus.

Mr. Chairman, these recommendations relate directly to the National Highway System. There are, however, other issues that would improve transportation programs and should receive the committee's attention.

- Enact a separate capital budget for the federal government.

The time has come to recognize that long-term investments in transportation facilities and other capital goods should be treated differently from annual expenditures for operations. A capital budget, similar to that in many states, would enable the federal government to more rationally plan and finance programs and projects as investments that may be carried out over a number of years and yield benefits over a long period of time.

ARTBA commends the committee for reporting a capital budget bill last year. There is growing appreciation for this concept, and we urge the committee to pursue the goal of a capital budget.

• Establish a program to facilitate greater investment in transportation facilities to support expanded commerce between the United States, Canada and Mexico as a result of the North American Free Trade Agreement (NAFTA).

A recent report by the Department of Transportation, "Assessment of Border Crossings and Transportation Corridors for North American Trade," concluded that while facilities immediately at border crossings are adequate for the time being, major arteries connecting border areas with the national transportation grid are "under stress" and in need of major improvements to accommodate expected growth of traffic. It also calls for "...planning for future border trade-related infrastructure and technology requirements for all modes to be included in state and national planning processes."

ARTBA does not believe that relying on the states to devote increased funds under the regular federal highway program is a satisfactory way to correct the problem of the stressed arterials. Highway needs in most states are so widespread and substantial that this approach would result in the short-changing of routes that support international commerce.

Furthermore, these highways connecting crossings into Canada and Mexico are not solely of local or even state interest. They are routes intended to serve interstate commerce in the truest sense, since upon them depends much of the ability to expand international trade.

ARTBA strongly supported ratification of NAFTA as a mechanism for increasing trade, employment and economic stability in the three involved nations. Additional funding and a focused approach are essential to providing the transportation corridors important to the success of NAFTA.

• Clarify and restate the intent of Congress with respect to conforming federal transportation and environmental laws.

ARTBA supports sustained and effective activities designed to improve the environment in which we live. Improved transportation facilities can contribute substantially to achieving environmental goals through means such as reducing traffic congestion in urban areas. We believe, however, that executive branch agencies should not attempt to expand these programs beyond the boundaries established by Congress.

In 1990, Congress approved amendments to the Clean Air Act that were fairly balanced. These amendments did not specifically apply to transportation construction projects in attainment areas--those that meet federal air quality standards--or to those projects that are not federally funded.

The EPA subsequently published regulations on January 11, 1993 that generally followed the congressional mandate. Last spring, however, organizations representing state and local air pollution control officials asked EPA to regulate both non-federally funded projects and those located in attainment areas.

The Public Works and Transportation Committee advised the EPA in a June 21 letter that any proposed extension of the Clean Air Act conformity program in that fashion had no support in the statute or legislative history.

Mr. Chairman, ARTBA commends you and other members of the committee for your prompt action in this regard.

Unfortunately, EPA had its own thoughts on the matter, notwithstanding the fact that the agency had already concluded in its January 11, 1993, proposed rule that Clean Air Act conformity requirements do not extend to attainment areas and non-federal transportation projects.

Since published reports indicated that EPA intended to expand the conformity program, ARTBA sent a letter to Administrator Browner accompanied by an extensive legal brief advising the agency that "any reversal of EPA's stated position is so significant that it must be the subject of either reproposal or additional public comment."

Mr. Chairman, the committee was provided with copies of the letter and legal brief at the time of their preparation.

In the final conformity rule published on November 24, 1993, EPA stated that it believes it has the authority to apply the conformity program to attainments, and that it will undertake an additional rulemaking to implement this aspect of the program. The final rule also requires limited project-specific determinations for certain non-federal projects.

As a result, ARTBA filed suit in the U.S. Court of Appeals for the District of Columbia challenging EPA's new conclusion that it has legal authority to regulate projects in attainment areas and those that are not federally funded.

Mr. Chairman, the Clean Air Act conformity program is without doubt highly complex, and its requirements can delay or prevent much-needed transportation projects from being carried out.

For example, if a project currently in an attainment area is treated the same as one in a non-attainment area, it cannot be built unless it is accounted for in the air quality analysis underlying the transportation improvement plan (TIP) conformity or in the state implementation plan (SIP), which is prepared by state air quality agencies after a lengthy process involving, among other steps, public hearings and legislative action.

We greatly appreciate the strong support of the Public Works and Transportation Committee in publicly stating in the strongest terms that EPA's efforts to extend its authority is contrary to the actions and intent of Congress. Unfortunately, there are others who endorse the EPA approach. For that reason, the *Congress should formally restate its intentions that EPA does not have the authority to extend conformity to projects using non-federal funds or those in attainment areas.*

- Continue the moratorium on the mandated use of crumb rubber in highway pavements.

Mr. Chairman, Section 1038 (d) of ISTEA mandates the use of crumb rubber in asphalt pavement. Specifically, it requires an incrementally higher minimum utilization level beginning this year. States that fail to meet the crumb rubber mandate would stand to have a portion of their federal highway funds withheld.

ARTBA believes that the crumb rubber mandate is ill-advised.

- Stop the use of the highway program to achieve other goals through the use of sanctions.

For some reason, the withholding of highway funds has come to be considered a legitimate tool for forcing public policy actions totally divorced from highway construction. Under existing law, states can be threatened with the loss of highway funds for, among other things, failure to carry out seat belt, motorcycle helmet, drunk driving and clean air programs. Even today, there are proposals in Congress to extend the sanction mania even further by amending the Clean Water Act to withhold highway funds if states do not carry out certain actions.

Although efforts are being made to ensure that transportation projects are consistent with the attainment of air and water quality standards, it is unnecessary to broaden the scope of Section 1057 of ISTEA, dealing with erosion control guidelines, to include the development of non-point source discharge mitigation guidelines. It is also ill-advised to expand the Secretary of Transportation's authority to impose sanctions in order to regulate highway construction-related surface water discharges.

Legislation to reauthorize the Clean Water Act (S. 1114), which was recently introduced in the Senate, contains provisions which would make both of these changes.

ARTBA recognizes the need to incorporate surface water runoff and storm water drainage features into project plans. These documents must be prepared for any construction activity which entails significant changes or disturbances on the construction site. We believe, however, that the responsiblity for developing and enforcing these engineering standards and requirements should rest with state and local authorities.

The committee should initiate a broad review of sanctions that can be disruptive to orderly highway development in the name of enforcing other federal requirements. Certainly, there can be other ways of obtaining what may very well be worthwhile results without disrupting the highway program.

- Reject efforts to include provisions codifying regulations concerning wetlands.

ARTBA opposes any legislative amendments which would seek to codify the regulation reflecting the terms of the settlement reached in the Tulloch case (*North Carolina Wildlife Federation v. Tulloch,* Civil No. C90-713-CIV-5-BO [E.D.N.C.]). The final rule adopted by the Army Corps of Engineers and the Environmental Protection Agency on August 25, 1993, seeks to expand the purview of Section 404 of the Clean Water Act to include the minor movement of

earth or fill material within wetland sites caused by mechanized land clearing, ditching, channelization or other excavation activity.

We do not believe that Congress has ever or should ever authorize the regulation of either dredging or onshore/upland construction under the Section 404 program. This provision of the Clean Water Act was enacted for the purpose of regulating the discharge of dredged or fill material into "the navigable waters of the United States." The Section 404 permitting program is designed to authorize the disposition of dredged or fill material at "specific disposal sites," established at locations which are separate and apart from the sites of ongoing dredging/excavation. Moreover, the minor movement or re-deposition of soil ensuing from transportation construction-related earthwork is not intended to convert high-valued wetland areas to "fastland," nor is it likely to substantially diminish an area wetlands' ecological and aesthetic value and/or storm water drainage and ground water recharge capacity.

Historically, both Congress and the Corps of Engineers have maintained that the inadvertent spillage of dredged material, occurring during navigation channel construction, is not subject to the Section 404 permitting requirements. (Navigational dredging itself is regulated under Section 10 of the Rivers and Harbors Act of 1899.)

ARTBA recommends that landside, construction-related or minor movement of soil, within a wetland site, receive the same exemption from Section 404 regulation provided for the intermittent spillage of dredged material occurring during the construction of navigational improvements.

These recommendations are made in an effort to forestall the adoption of any legislative provision whose enactment would merely increase engineering and construction costs and unduly delay badly needed transportaiton improvements, without producing any significant environmental benefits.

Mr. Chairman, I have enumerated several actions which ARTBA believes should be taken to improve transportation programs in general and the National Highway System in particular.

There are also some proposals which the committee should not incorporate into the National Highway System legislation. Suggestions already have been made that would utilize the bill as a vehicle for a wide range of unwise policy changes and tangential actions.

Our first cautionary note is to urge the committee, in its consideration of other proposals, *not to allow the National Highway System to become a secondary issue.* The establishment of this vital system is the central purpose of this legislation, and it should remain such.

Mr. Chairman, ARTBA has proposed several ways in which we believe the National Highway System program can be strengthened. We are aware of proposals that others will make that will have the opposite result. We urge the committee to reject these suggestions by those whose goal is not to enhance transportation but to halt the development of a modern highway network that will sustain this country's economic strength and personal mobility.

I will list a few of them:

- Increase opportunities to transfer National Highway System funds to other uses.

Mr. Chairman, just the opposite is what is needed. I have already given reasons why flexibility must be restricted with respect to use of NHS funds. So long as the capital needs of this "backbone" system remain anywhere near their present level, limited funds available for meeting these needs should be targeted only on the National Highway System.

- Give metropolitan planning organizations control of National Highway System funds.

The National Highway System is conceived as an integrated national transportation network. As such, its development and management must be the responsibility of the states, the authorities which can exercise a broader, coordinated, statewide approach. Dividing the money into smaller quantities would inhibit the orderly development of the system, and the suggestion to do so likely is motivated by a desire to divert National Highway System funds toward other uses.

Ironically, Mr. Chairman, many of those who originally supported a larger role for metropolitan planning organizations in developing transportation plans acknowledge that these bodies do not yet have the resources and experience to adequately carry out even the responsibilities assigned to them by ISTEA.

- Restrict National Highway System construction only to maintenance.

Maintenance is an important component of any highway program. However, limiting the use of NHS funds only to this purpose would defeat the objectives of the total program. Such a limitation would prevent projects designed to improve mobility, reduce urban congestion and air pollution, and accommodate a growing population and economic activity.

None of these proposals would enhance development of the National Highway System. They should be rejected by the committee.

Finally, Mr. Chairman, I would comment on an important issue you raised in last week's hearing. You asked Secretary Pena his thoughts on the possible creation of a unified transportation trust fund in connection with proposals for a National Transportation System which are being developed by his department.

This is a crucial matter, the answer to which has been hanging over discussions of the National Transportation System since the s ecretary first proposed it in December. Secretary Pena responded to your question by saying that a unified trust fund had, indeed, been suggested but that he has no position on it at this time.

ARTBA does have a position. Given the country's huge and growing surface transportation needs, it would be unwise in the extreme to meld the Highway Trust Fund into another pool of funding. We would view such an action as another effort to water down support for the highway program by diverting the trust fund's resources in other directions.

The Highway Trust Fund, which supports highway and transit programs, and the Airport and Airways Trust Fund were created to meet specific needs and are maintained by user fees paid by those who use highway and airport facilities. They have a right to expect that the funds collected are used for the purposes intended. To do otherwise, would turn the trust funds into a general revenue collection mechanism, and the income would be dissipated in so many directions that all modes likely would be inadequately funded.

The secretary's concept of a National Transportation System, as we understand it, appears to have merit in seeking to coordinate the development of all forms of movement. The committee, however, should seriously examine any proposal from the Department of Transportation that would alter the existing trust fund structure.

Mr. Chairman, that concludes ARTBA's formal testimony. Again, I am appreciative of the opportunity to be here today to discuss with the subcommittee the most important, far-reaching transportation legislation that will come before you this year.

I would be pleased to respond to any questions you may have.

Exhibit 4-11
Summary of Annualized Highway and Bridge Investment Requirements
2.5% VMT Growth Rate
1992-2011
(all estimates expressed in billions of 1991 dollars and do not reflect inflation)

Functional System	ANNUALIZED COST TO IMPROVE			ANNUALIZED COST TO MAINTAIN		
	System Preservation (1)	Capacity (Includes Requirements to Support Metropolitan Expansion) (2)	TOTAL	System Preservation (3)	Capacity (Includes Requirements to Support Metropolitan Expansion) (4)	TOTAL
RURAL						
Interstate	2.4	1.8	4.2	2.0	1.7	3.7
Other Principal Arterial	2.5	1.7	4.3	1.9	1.1	3.0
Minor Arterial	2.9	1.3	4.2	2.2	1.0	3.2
Major Collector	5.3	0.7	6.0	4.2	0.7	4.9
Minor Collector	3.4	0.1	3.5	2.0	0.1	2.1
Local	0.7	0.0	0.7	0.5	0.0	0.5
SUBTOTAL RURAL	17.2	5.6	22.9	12.8	4.6	17.4
URBAN						
Interstate	4.9	5.3	10.1	4.1	4.4	8.5
Other Freeway and Expressway	1.9	2.6	4.5	1.5	1.9	3.4
Other Principal Arterial	4.8	7.3	12.1	3.7	4.3	8.1
Minor Arterial	3.5	5.3	8.7	2.8	3.6	6.4
Collector	2.6	2.4	5.0	2.1	1.8	3.9
Local	0.2	3.8	4.0	0.1	3.8	3.9
SUBTOTAL URBAN	17.9	26.5	44.4	14.3	19.9	34.2
TOTAL HIGHWAY	35.1	32.2	67.3	27.1	24.5	51.6

(1) Highway pavement investment requirements (Exhibit 4-3) plus bridge investment requirements (Exhibit 4-9) under the Improve Conditions and Performance Scenario.

(2) Highway capacity investment requirements (Exhibit 4-3) under the Improve Conditions and Performance Scenario and Metropolitan Expansion requirements (Exhibit 4-8).

(3) Highway pavement investment requirements (Exhibit 4-6) plus bridge investment requirements (Exhibit 4-10) under the Maintain Conditions and Performance Scenario.

(4) Highway capacity investment requirements (Exhibit 4-6) under the Maintain Conditions and Performance Scenario and Metropolitan Expansion requirements (Exhibit 4-8).

Source: The Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance
Report of the Secretary of Transportation to the United States Congress
January 1993

Testimony of
Bill B. Armstrong Jr.
of
The Associated General Contractors of America
Presented to the
Surface Transportation Subcommittee
United States House of Representatives
March 3, 1994

On the Topic of
The National Highway System

The Associated General Contractors of America (AGC) is a national trade association of more than 33,000 firms, including 8,000 of America's leading general contracting firms. They are engaged in the construction of the nation's commercial buildings, shopping centers, factories, warehouses, highways, bridges, tunnels, airports, water works facilities, waste treatment facilities, dams, water conservation projects, defense facilities, multi-family housing projects and site preparation/utilities installation for housing development.

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KEY POINTS IN AGC'S TESTIMONY:

National Highway System

The Congress must make designation of the National Highway System by September 30, 1995 a top priority.

The National Highway System is necessary to meet the nation's changing economy and transportation needs.

The National Highway System will target investment to enhance the nation's economy, improve transportation safety, and strengthen international trade.

The National Highway System must be adequately funded to meet future surface transportation needs.

Other Issues of Importance to AGC

The Congress should provide for flexibility in the use of Crumb Rubber Asphalt in highway construction.

The Congress should closely monitor implementation of the Clean Air Act Transportation Conformity Regulations to ensure that the economic benefits of the ISTEA are fully realized.

The expansion of eligible projects under the ISTEA, combined with the increased use of alternative fuels and the resulting loss of revenues to the Highway Trust Fund, threatens the nation's ability to adequate y invest in the nation's highways and bridges.

Continuous Quality Improvement in highway construction is being achieved cooperatively by federal and state highway officials, designers and construction contractors through such joint efforts as the National Quality Initiative, Partnering and Value Engineering.

The objectives of the Disadvantaged Business Enterprise Program can better be achieved through a combination of outreach, partnering, and new thinking.

Good morning, Mr. Chairman and members of the Subcommittee. My name is Bill Armstrong, Jr. I am a highway contractor from Roswell, New Mexico, and this year's Chairman of the Highway Division of the Associated General Contractors of America (AGC).

AGC commends you, Mr. Chairman, for holding these important hearings on legislation to enact the National Highway System. Congress acknowledged the economic importance of a high quality national highway and bridge network with the inclusion of the National Highway System in the Intermodal Surface Transportation Efficiency Act of 1991. AGC applauds the Subcommittee for its effort to move expeditiously to enact the National Highway System (NHS).

NATIONAL HIGHWAY SYSTEM

The Congress must make designation of the National Highway System by September 30, 1995 a top priority.

The Intermodal Surface Transportation Efficiency Act (ISTEA) dramatically restructured America's surface transportation programs in an attempt to address the mobility challenges of the 21st century.

One way ISTEA seeks to accomplish that goal is through the designation and funding of a national system of highways and bridges called the National Highway System (NHS). This system of approximately 158,000 miles of roads would become the foundation of a transportation network linking commercial and urban centers across the nation, in addition to providing better access to other transportation facilities and border crossing points. It would consist of the 45,000 mile Interstate System and other arterial routes vital to a national transportation system. And while comprising only four percent of all the nation's roads, it would support some 40 percent of the nation's total vehicle travel and 75 percent of travel by heavy trucks.

Adoption of the NHS will bring many benefits, including improved traffic safety conditions, upgraded road surfaces, economic growth, reduced traffic congestion, increased tourism, and expanded interstate and international commerce. FHWA Administrator Rodney Slater aptly calls the NHS "the backbone of the nation's intermodal transportation system in the 21st Century" and states that "it will help ensure that America can compete effectively in expanding global markets and promote job creation here at home."

Failure to enact the NHS by the September 30, 1995 deadline would be a major setback for the nation's economy, given the close relationship between an efficient transportation system and economic growth. As our nation's economy becomes more and more a part of a global economy, our system of roads must be increasingly able to support the needs of expanded interregional and international commerce and trade. Already, Canada is developing a national system of roads, and Mexico, too, is engaged in a massive program to update and modernize its own highway system.

The National Highway System is necessary to meet the nation's changing economy and transportation needs.

America's economy and its transportation needs are changing. Vehicle miles of travel (VMT), the sum of all miles traveled by vehicles in one year, has been increasing steadily at a rate of about 2.5 percent per year. Not only is travel increasing nationally; it has grown particularly in areas which have experienced rapid development in the last few decades. Since the planning of the Interstate System in the 1940s, the demographics of the nation have changed in the intervening half century. The location and operations of many businesses and industries have also changed. Migration of population, business and manufacturing from northeast urban areas to southern and western regions has placed new demands on the highway network that the Interstate System alone was not designed to meet.

In addition, the economy today is dominated increasingly by service-based businesses and smaller, lighter manufacturing industries whose markets tend to be closer to their places of production and operation. Flexible and efficient transportation systems have proven essential to their efforts to increase productivity and reduce costs. Consequently, these businesses are relying on highway transportation to move their goods quickly and efficiently to market. About 42 percent of freight is transported by ground, representing 80 percent of the value of all freight transported. Seventy-five percent of all ton miles of goods moved is shipped between 100 miles and 1,000 miles by truck, accounting for 90 percent of the value of goods shipped.

Transportation costs account for approximately 46 percent of American firms' annual operating costs, while costs associated with inventories represent another 37 percent of these costs. Reducing these costs was essential in achieving many of the productivity gains realized during the 1980s, when American business and industry saved approximately $60 billion by lowering transportation and inventory costs.

One important way business is lowering logistics costs is by utilizing "just-in-time" distribution systems, which cut costs by keeping inventory levels low and products moving in the transportation cycle. According to the U.S. Department of Transportation (DOT), 55 percent of the nation's manufacturers will be using "just-in-time" shipment by 1995. Future productivity gains will depend upon the efficiency of the nation's road system in cutting transportation costs and supporting the increasing importance of flexibility in distribution systems.

The NHS will benefit virtually every American. According to the FHWA, 95 percent of American households and 95 percent of businesses will be within five miles of an NHS route.

The National Highway System will target investment to enhance the nation's economy, improve transportation safety, and strengthen international trade.

The NHS will target investment at improving the conditions of the highways and bridges that are of national significance. Approximately eight percent of interstate routes on the NHS are in poor condition and approximately 16 percent are in fair condition. In addition, nine percent of bridges along these routes are structurally deficient and 20 percent

are functionally obsolete. NHS funding would be aimed at improving these deficient conditions and restoring them to good condition.

NHS funding would also be aimed at bringing some arterial routes up to interstate standards. Such improvements would include adding medians, widening lanes and shoulders, and implementing controlled access. Such improvements are important to travel and interstate commerce because they will help reduce congestion by improving traffic flow and allowing vehicles to travel safely. Improved road conditions and less congestion lower transportation costs by cutting travel time and reducing unnecessary wear on the vehicle. Reduced transportation costs, in turn, translate into lower costs for consumer goods.

More importantly, improvement of NHS routes will save lives and reduce accidents and injuries. Widening a lane by one foot, for instance, reduces accidents by approximately 12 percent, and widening by two feet reduces accidents by 23 percent. If the NHS reduces fatalities by two percent, that would translate to a $637.5 million cost savings to society annually.

Another important feature of the NHS is that it will enhance system "connectivity" with ports, airports, railroad stations and border crossings and will ensure that priority roads continue across state borders. This is particularly important for the economy. Tourism is the third largest industry in the nation today and most vacation travel involves some use of NHS designated routes as travelers head for their interstate or international destinations.

In addition, as foreign trade continues to grow in the U.S., accounting for approximately 20 percent of GDP, it also continues to grow more competitive. Improved access to ports and other foreign trade facilities via NHS routes is critical to keeping costs down and maintaining a competitive edge, especially for Midwest producers and manufacturers who are on average further from ports than most of their foreign competitors.

The North America Free Trade Agreement is expected to significantly increase trade among Canada, Mexico and the U.S. According to the General Accounting Office, 80 percent of freight entering the U.S. from Mexico and 60 percent of the freight entering from Canada arrives by truck. The NHS will facilitate the transport of these goods by serving all major border crossing points.

The National Highway System must be adequately funded to meet future surface transportation needs.

Despite the level of funding authorized in ISTEA, this nation continues to underinvest in its highway and bridge system. The 1993 U.S. Department of Transportation's report to Congress on the status of the nation's surface transportation system states that the total expenditure on highways by all levels of governments in 1991 was $81.2 billion, with $36.1 billion of this being spent for highway and bridge **capital** improvements. The federal share of this $36.1 billion was 41 percent in 1991, compared to 44 percent in 1989. As to the capital needs of the nation's highways and bridges, the report finds that $51.6 billion should be expended annually just to maintain conditions and performance and that if conditions and performance are to be improved to acceptable levels the annual **capital** funding should be $67.3 billion.

Clearly, the first priority is to establish the NHS. A very important second step is adequately funding the System to meet future transportation needs by improving highway and bridge conditions..

OTHER ISSUES OF IMPORTANCE TO AGC

AGC recognizes that consideration of the NHS provides the Congress with the opportunity to make some changes in ISTEA. I will now briefly discuss some issues of concern to our industry which Congress may address prior to the reauthorization of ISTEA in 1996.

The Congress should provide for flexibility in the use of Crumb Rubber Asphalt in highway construction.

AGC urges Congress to amend Section 1038 to allow flexibility in the minimum utilization requirements of crumb rubber in asphalt pavement. Due to the mixed results of crumb rubber pavement, Congress correctly placed a one year moratorium on imposition of penalties against states for failure to comply with Section 1038. AGC believes the minimum utilization requirements should be expanded to allow uses other than in hot mix asphalt pavement.

Section 1038 of ISTEA contains a provision which requires a certain percentage of hot mix asphalt tonnage purchased with Federal-aid funds to contain crumb rubber from scrap tires. These minimum utilization requirements are that 5% of the Federal-aid hot mix asphalt tonnage in 1994, 10% in 1995, 15% in 1996 and 20% in 1997 contain crumb rubber.

A survey conducted by the American Association of State Highway and Transportation Officials (AASHTO) identifies several concerns about crumb rubber modified hot mix asphalt including: the increased cost of paving; concerns about potential related health effects from using crumb rubber; and the availability of sufficient crumb rubber to satisfy the mandates of Section 1038. The survey indicates that the cost of full implementation of Section 1038 will be significant, about $1 billion in 1997 alone. In addition, the potential for recycling crumb rubber asphalt has not been adequately demonstrated.

Scrap tires are a significant waste management problem in the U.S. The strategy to resolve this national problem should be to provide a range of options for states to enable them to explore more effective disposal and reuse alternatives than the use of scrap tires in asphalt pavement.

The Congress should closely monitor implementation of the Clean Air Act Transportation Conformity Regulations to ensure that the economic benefits of the ISTEA are fully realized.

State and local elected officials face a significant challenge in complying with the transportation conformity regulations of the 1990 Clean Air Act Amendments. AGC believes that Congress provided EPA and DOT with a reasonable degree of latitude to sort out the differences in pursuit of the overall objective of achieving a balance between the goals of improved transportation and improved air quality.

Just three months after the conformity rule was released, Ohio Governor Voinovich wrote President Clinton "that a strict interpretation of the conformity rule as it applies to oxides of nitrogen could lead to a wholesale shut down of Ohio's urban transportation program." As state and local governments achieve a better understanding of the complexity and difficulty in meeting the deadlines mandated by the conformity rule, more governors will be faced with choosing between EPA sanctions or drastic self-imposed reduction in economic activity.

Americans clearly want and need both a healthy economy and a healthy environment, and the reason the EPA and DOT were tasked with developing the conformity rule was that Congress wanted both goals reflected in the final rule. AGC urges this Subcommittee to closely monitor the economic impact of the conformity rule and take the necessary action to protect the balance Congress entrusted the agencies to achieve.

The expansion of eligible projects under the ISTEA, combined with the increased use of alternative fuels and the resulting loss of revenues to the Highway Trust Fund, threatens the nation's ability to adequately invest in the nation's highways and bridges.

As stated earlier, AGC is concerned with the shortfall of investment to maintain and improve the condition of the nation's highways and bridges. Clearly, there are not enough available resources to meet the needs of all the eligible programs under ISTEA. As more non-highway interests take advantage of the flexibility provisions of ISTEA, it is evident that insufficient funds will be available to address neglected highway and bridge needs.

Not only has the list of eligible projects been expanded under ISTEA, the revenue source that supports the Highway Trust Fund is being eroded by diverting gas tax funds to deficit reduction and the increased use of alternate fuels on which highway user fees are not fully assessed and should be.

AGC opposes EPA's proposed regulation to mandate the use of alternate fuels. According to DOT, EPA's proposal would result in losses of $340-$465 million annually from the Highway Trust Fund. These annual losses would be in addition to current losses of Highway Trust Fund revenue of over $500 million annually because of the fuel tax exemption for ethanol-gasoline blend fuels. Over the past ten years losses to the Trust Fund due to the fuel tax exemption for ethanol blends, according to the U.S. Treasury, have totaled $4.6 billion. The potential losses due to the fuel tax exemption will be borne by the Highway Account of the Trust Fund. This erosion of revenue would significantly affect future highway program funding.

Continuous Quality Improvement in highway construction is being achieved cooperatively by federal and state highway officials, designers and construction contractors through such joint efforts as the National Quality Initiative, Partnering and Value Engineering.

During consideration of ISTEA, the House-passed bill included a provision to permit the inclusion of guarantee or warranty provisions in Federal-aid highway contracts. AGC and the highway industry provided cogent reasoning why this provision was not the anwer to improved quality, thus the provision was dropped in conference. The U.S. General

Accounting Office was asked to report on means for improving the quality of highways constructed with Federal assistance.

AGC has had several positive meetings with the sponsor of the guarantee/warranty provision to explain the adverse impact it would have on the industry. In addition, AGC has shared many of the positive actions the industry has undertaken to promote continuous quality improvement in the highway industry.

AGC currently serves as co-chair of the National Quality Initiative (NQI) Steering Committee. The NQI is an important effort between federal and state officials and private industry organizations to refocus attention on quality improvements. The NQI is spearheading an effort to hold a quality oriented seminar in every state. The state effort follows the successful national forum and four regional sessions held in late 1992 and last year.

AGC continues to promote the use of Partnering and believes its success has resulted in fewer construction disputes and improved quality. The majority of state highway agencies have incorporated Partnering into the construction process. Partnering has created an environment where trust and teamwork prevent disputes, foster a cooperative bond to everyone's benefit, and facilitate the completion of a successful project.

Partnering also fosters the use of value engineering (VE) which saves money and enhances innovation and quality improvements.

In December, Secretary Peña sent to Congress a report entitled, "Value Engineering on Federal-aid Projects." The report found that the use of VE by state highway agencies is not widespread: seven states have "active" VE programs; 18 states have "inactive" VE programs; and the remaining states have "limited" VE programs. An analysis of the VE programs in seven active states confirms that VE can be an effective cost reduction tool. VE also presents the opportunity for enhancing innovation.

For VE to be successful, support for the VE process at all levels of management is needed. AGC supports FHWA's effort to encourage all states to establish a VE process.

The objectives of the Disadvantaged Business Enterprise Program can better be achieved through a combination of outreach, partnering, and new thinking.

This is the first occasion in several years in which AGC is commenting on the subject of disadvantaged business enterprise with optimism for the future of this well intended program. The association is continuing the work of a top priority Task Force to find ways in which this subject can be positively addressed through combinations of outreach, partnering, and new thinking, in which all parties involved in what has been a difficult situation can work together in the hope of putting the issue behind all of us and going forward together.

In the same vein as the foregoing comments, I avail of this opportunity to point out that the top management of President Clinton's Department of Transportation have been extraordinarily quality management oriented with the construction industry. Under Secretary Peña's leadership and the leadership of Federal Highway Administrator Slater, as just two

examples, a spirit of cooperation is growing that leads me to the belief that all the issues that face us can be resolved on the path of cooperation and progress.

I also believe that our goals, that is the goals of minority contractors and AGC members, have far more in common and far outweigh the areas in which differences have existed and good will can resolve.

In conclusion Mr. Chairman, the enactment of the NHS is one of the most critical actions this Congress must take to assure a sound transportation system and enhance economic prosperity. AGC applauds the Subcommittee's early action in holding these hearings and looks forward to working with you in support of this critical legislation.

Statement of Associated Builders and Contractors

Presented By

Roy Beckner

S.W. Rodgers Co., Inc.

before the

Subcommittee on Surface Transportation

House Public Works and Transportation Committee

March 3, 1994

Speaking for the Merit Shop

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Rosslyn, Virginia 22209
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Good morning. My name is Roy Beckner with S.W. Rodgers Co., Inc., a large heavy and highway contractor located in Gainesville, Virginia. On behalf of Associated Builders and Contractors (ABC), I appreciate this opportunity to comment on the designation of the National Highway System.

Associated Builders and Contractors represents over 16,000 contractors, subcontractors, material suppliers and related firms from across the country and from all specialties in the construction industry. Our diverse membership is bound by a shared commitment to the merit shop – the most efficient construction technique in America. The merit shop philosophy of awarding construction contracts to the lowest responsible bidder, regardless of labor affiliation, through open and competitive bidding, assures taxpayers and consumers the most value for their construction dollar. With 75 percent of construction done today by open shop contractors, ABC is proud to be their voice.

ABC has had the opportunity to appear before the Public Works and Transportation Committee several times in recent years during the reauthorization of the federal aid highway program. The Intermodal Surface Transportation Efficiency Act (ISTEA), the product of those many hearings and extensive debate, set the mark for our nation's future transportation policy. Today, we appreciate the opportunity to appear once again before the Surface Transportation subcommittee, this time to comment on the designation of the National Highway System – a network which paves the way for an integrated National Transportation System.

As legislation designating the NHS is finalized, ABC urges the committee to produce a bill that embodies the original intent of the National Highway System as authorized under ISTEA. Many have suggested that consideration of the NHS is an opportunity to place specific constraints on the program as well as incorporate major policy decisions regarding current transportation programs. ABC believes that the National Highway System has the greatest chance of being realized if it is brought before Congress as outlined in ISTEA.

NATIONAL HIGHWAY SYSTEM

ABC believes that the designation and approval of the National Highway System routes will truly exemplify the foresight of America's transportation leaders who brought ISTEA to life. The concept of maintaining, modernizing, and managing our nation's roadways to better link our towns and cities is ultimately the backbone of the surface transportation program. The National Highway System (NHS) will consist of nearly 159,000 miles of roadway including all Interstate routes, urban and rural principal arterials, the defense strategic highway network, and strategic highway connectors. ABC applauds the Federal Highway Administration for submitting to Congress on time last December the map of proposed NHS routes. ABC is confident that the NHS will be approved by Congress in a timely manner in advance of the 1995 deadline.

The general aims of the NHS–to achieve an integrated urban-rural system that connects major population centers, international border crossings, ports, airports, and

public transportation facilities–will provide countless benefits not only for the transportation industry, but the overall economy of the United States. As a national association representing contractors from all sectors of the construction industry, ABC is encouraged by the anticipated benefits our industry will encounter from the NHS.

It is an obvious assumption that highway contractors will be active on NHS routes. What may not be as obvious is the effect the NHS will have on the commercial, industrial, and residential sectors of the construction industry, as well as on overall economic growth. In several published papers, Dr. David Aschauer, professor of economics at Bates College (Lewiston, ME), has studied the effects of transportation infrastructure on regional and national economic growth. In a 1990 study published by the Economic Policy Institute, Dr. Aschauer finds that "the nation's stock of 'core infrastructure' (streets and highways, mass transit, airports, water and sewer systems, and electrical and gas facilities) are intrinsic to almost every sector of private production and are especially influential in the determination of total national economic output." In his 1990 article, Highway Capacity and Economic Growth, Aschauer finds that:

> An increase in the stock of highways for a given locale generates a higher return to local, productive activity by raising the level of transportation services available to producers. This higher return to production, in turn, stimulates private investment in these productive facilities. The increased investment carries with it higher growth in output and income for the particular locale.

While Dr. Aschauer's findings are not specific to the National Highway System, ABC believes that the NHS program has been designed with these economic goals in mind. The NHS focuses federal resources on roads that are the most important to interstate travel and national defense, roads that connect rural and urban areas, that link different modes of transportation, and serve international borders.

It is apparent that the NHS will have a direct impact on the transport of people and goods. ABC believes that the anticipated increase in economic growth in a given community will translate into an increase in building and general construction activities.

The mode and the structure of transportation is not the goal in and of itself, but rather it is the facilitator of other societal goals such as economic development, economic growth, and the redistribution of economic activity. Adequate transportation is essential for an active, growing economy. ABC is certain that the designation and approval of the NHS will have a positive impact on countless industries by improving urban transportation, rural transportation and ultimately better linking the two.

We are at a critical juncture in the history of our nation's transportation systems. We must have the best, most efficient transportation network in the world if we are to compete in an increasingly global economy. With the passage of ISTEA and the designation of the National Highway System, we are improving and expanding our

nation's economic foundation.

FUNDING

Our nation's infrastructure, a vital component of our future economic growth and stability, continues to suffer from a serious lack of investment. This investment gap imposes rising costs on our nation's productivity, inhibiting our ability to compete in an increasingly global economy and threatening our basic quality of life. Since passage of ISTEA, appropriations have failed to meet authorizations by some $4 billion. State and local governments who developed their transportation programs based on a fully-funded five-year federal transportation program have had to make quite a few adjustments based on the ISTEA shortfall.

For the National Highway System to be developed and implemented as authorized under ISTEA, full funding of the Act must be a priority. ABC is pleased that the recently released Department of Transportation budget allocates $20.3 billion for the Federal Highway Administration to fully fund the program for FY 1995. While the administration proposes full funding, the source of those funds – the Highway Trust Fund – has been greatly effected by new fuel taxes which are earmarked for deficit reduction purposes. As a result of the Omnibus Budget Reconciliation Act of 1993, an additional 4.3 cents per gallon of federal fuel taxes goes for deficit reduction. When added to the 2.5 cent gas tax imposed in the 1990 budget agreement, a total of 6.8 cents per gallon of the federal gas tax now goes to the general revenue fund.

ABC has long advocated that revenues raised by user fees and collected in transportation trust funds should be allocated and spent solely for their intended purposes. The return of the 2.5 cent diversion to the Highway Trust Fund is a positive signal to send to the millions of highway users that contribute in good faith to the maintenance and improvement of our roadways every time they visit the pump.

While the 2.5 cent diversion is scheduled to be returned to the Highway Trust Fund in October, 1995, it is our concern that unless it is returned sooner, the trust fund will be sorely underfunded. There is the possibility that, in light of other Administration policies and proposals, the Highway Trust Fund will not be able to sustain the program in the out years of ISTEA, even with the return of the diverted funds. Returning the 2.5 cent diversion earlier than FY 1996 could help to offset other drains on the trust fund such as the alternative fuels tax exemption.

In planning for a continuing highway program, serious consideration must be given to repeal of the ethanol exemption from the motor fuels tax. We believe continuation of the current gasohol exemption undermines efforts to invest in our nation's infrastructure. The current exemption costs the Highway Trust Fund $500 million each year with an additional $200 million diverted from state and local transportation needs. The gasohol subsidy was originally intended to promote the use of environmentally friendly fuels. Now

that Congress has mandated the use of these fuels, we believe a subsidy of this nature is no longer necessary, and at the very minimum the highway program should not bear the brunt of a subsidized alternative fuels program. Additionally, EPA's proposed rule requiring a 30% ethanol mandate for reformulated gasoline will result in yet another drain on the Highway Trust Fund of $340 million annually.

ABC firmly believes that revenues raised by user fees and collected in transportation trust funds should be allocated and spent solely for their intended purposes. We believe that the Highway Trust Fund should be made permanent and taken off-budget; the current practice of holding money in the trust fund to mask the size of the federal deficit is not constructive policy for the country and certainly not for the our nation's transportation program.

STATE ROLE

ABC supports the flexible funding structure of ISTEA, allowing states and localities to decide the best use of the available federal funds. Because transfer provisions are an option that may be taken by state and local officials, input from many different transportation users and suppliers should be gathered when making these transfer decisions. As exemplified in the development of the NHS, involving transportation planning officials, transportation providers, and transportation consumers in the planning process facilitates coordinated planning and the continuity necessary to meet our transportation needs of the future.

Under ISTEA, the increased flexibility of the Urban and Rural Program has empowered states to choose how they will improve their condition. States have begun to focus on internal transportation issues such as congestion relief, rural access and intermodal links. The capability of states and localities to prioritize their transportation demands and allocate funding as needed is a basic necessity for transportation efficiency in the future. Thus, it is imperative that the state authority regarding the use of NHS funds be maintained.

The increased emphasis placed on planning in ISTEA and the reliance on Metropolitan Planning Organizations has been invaluable in properly coordinating needs and planning for the future. Governmental partnerships established at every level to investigate current and future transportation needs has facilitated the development of the NHS map that we know today. While the most effective planning has involved several groups, ABC believes that the next decisions – implementation and allocation of funds for the NHS – must lie with the states.

FLEXIBILITY OF FUNDS

As the ISTEA and the NHS proceed, ABC will continue to monitor the transfer provisions of the program. While the funding flexibility of ISTEA allows transfers between

highway categories, it also allows transfers from highway categories for transit uses, as well as transfers from highways to transportation enhancements, such as acquisition of scenic, historic, or archaeological sites. When ISTEA became law, it made at least $90 billion of highway user taxes eligible for transfer to fixed rail transit, bicycle paths, magnetic levitation trains, the restoration of historic railroad stations, and a host of other non-highway purposes. In 1992, $261 million was transferred from highways to transit projects in 15 states. Estimates suggest that as much as $500 million could be transferred to non-highway projects this year alone. There have been no transfers from transit to highway accounts. While ABC supports the flexibility of ISTEA, we are concerned that in some cases funds are not being used for their intended purpose.

SPECIFIC ALLOCATION REQUIREMENTS

As the NHS is under consideration, ABC urges the committee and Congress to reject any attempts to attach specific use requirements to NHS funding. ABC is opposed to the idea of developing additional requirements mandating state use of NHS funds for urban projects, designating separate maintenance funds, or limiting new construction or capacity. ABC believes that the process undertaken in developing the NHS routes in each state and locality incorporates the areas current and future transportation needs. Under current statute, states have the ability to determine use of funds for their transportation needs. The flexibility of ISTEA would be broken by proposing these types of specific allocation requirements.

In addition to the above concerns specific to the designation of the National Highway System, ABC asks the committee to consider the following reforms and provisions that affect our nation's transportation current and future programs:

DAVIS-BACON ACT

With the funding constraints that we have already experienced under ISTEA and the anticipation of less than full funding for the life of the Act, ABC proposes reform of the federal prevailing wage law to help stretch the limited federal funds available for projects such as the National Highway System. ABC continues to advocate a minimum Davis-Bacon Act threshold on federal construction projects of one million dollars.

As you know, the Davis-Bacon Act mandates "prevailing wage" rates be paid on all federal or federally-assisted projects of $2000 or more. The original intent of the act was to protect local workers from itinerant laborers who worked for lower wages. This noble intent has been replaced by an outdated measure hampering competition, disrupting local economies and restricting job opportunities for small businesses.

With immediate needs for highway and bridge construction and repair far outstripping the current and anticipated supply of available funds, reform of the Davis-

Bacon statute can provide additional dollars to fund our infrastructure needs.

WARRANTY/GUARANTEE PROVISIONS

ABC is opposed to any attempt to amend current regulations to allow state transportation or highway departments to incorporate warranty or guarantee provisions into federal-aid construction projects. ABC believes that warranty and guarantee provisions – which are prohibited under current law – are unnecessary and potentially damaging to a presently successful contracting process.

Our members pride themselves in quality construction work. We strongly oppose, however, efforts to hold contractors responsible for the performance of materials and structures when a host of outside factors contribute to product life, such as project design and post-construction project use.

Quality construction work is assured through the current contracting process. That is, contractors are not fully paid until they have met all the requirements and specifications in their contracts which are monitored through regular state inspection. Additionally, pursuant to the Miller Act, contractors on federal projects are required to be bonded – guaranteeing the government satisfactory project completion.

Warranty and guarantee provisions would create serious liability problems for contractors. Moreover, the current level of competition among contractors would be greatly diminished as many would be unable to assume the huge financial risk in backing long-term warranties. It is unlikely that small or average-sized companies could obtain surety bonds to secure contracts that include long-term guarantee or warranty provisions, thus confining highway construction to a few very large firms with enormous financial resources.

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

ISTEA continues the Disadvantaged Business Enterprise Program (DBE) whereby 10 percent of federal-aid highway, highway safety and mass transit program funds are to be awarded to DBE contractors. This stringent 10 percent DBE requirement fails to recognize the need for flexibility and cooperation which we believe Congress had originally intended in its minority provision.

Instead, ABC believes that partnering and mentoring programs that help disadvantaged firms and their employees become more skilled at both the craft and management levels are most successful. Training is an investment in the future and will better equip DBE firms with the skills necessary to successfully compete in the absence of preferential treatment. ABC has entered into a formal agreement with the National Association of Minority Contractors (NAMC) and the National Association of Women in Construction (NAWIC) to work together to expand educational and training opportunities to further integrate minority-owned firms into the construction industry. This partnership

is a result of the activities of an ABC task force which identified ways to implement private sector initiatives to facilitate the participation of women and minorities in the construction industry. ABC, NAMC and NAWIC are focusing on education and training opportunities to provide women and minority entrepreneurs access to the skills and knowledge necessary to be competitive and earn the rewards which accompany success in the free enterprise system.

Additionally, ABC has focused a large portion of its financial, membership and staff resources on the issue of craft and supervisory training. In January, 1993, ABC completed a special report on training issues within the U.S. construction industry which we delivered to President Clinton and the Congress. The report outlines the progress of ABC, along with sixteen of the nation's largest open shop contractors, in developing standardized craft training; our Wheels of Learning program has been developed to more efficiently and effectively train and upgrade the construction workforce. We have long recognized that if the United States is to foster expanded opportunities for all its citizens and maintain its competitiveness, hundreds of thousands of additional highly skilled workers will be needed between now and the year 2000. Training is the only solution.

Although individual ABC members participate in the DBE program, ABC officially opposes restrictive bid practices. This policy stems from our belief that set-aside programs have failed to prepare certified DBEs for success in an open, competitive bid situation. ABC supports the Department of Transportation's proposed revisions to the DBE program which should achieve two important aims: to provide participating DBEs with business development skills and to ensure their graduation into the open bid environment.

On behalf of the Associated Builders and Contractors, I again want to thank Chairman Rahall and the Subcommittee on Surface Transportation for the opportunity to share our views on the designation of the National Highway System.

Testimony of American Motorcyclist Association

before the

House Subcommittee on Surface Transportation

"National Highway System
Legislation and Ancillary Issues"

March 3, 1994

Presented by: Jim Bensberg
AMA Washington Representative
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The AMA on behalf of its 200,000 members nationwide, is pleased to present testimony today regarding the designation of the National Highway System and other issues of importance. Our primary concern deals with the effects of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).

Penalties Assessed to States Failing to Enact Compulsory Helmet Laws

Our members have long opposed efforts by states, aided by the federal government, to impose mandatory helmet laws for riders of all ages. The debate is not whether *helmet use* is desirable; in our view the advantages of helmet use far outweigh any possible disadvantages. Rather, our members believe strongly that helmet use should remain an individual decision by the motorcyclist. Passage of ISTEA effectively removed this debate from the hands of state legislators by imposing a "carrot and stick" approach. However, it is interesting to note, that fully half of the states are out of compliance with ISTEA because they have not passed or put into effect by September 30 of last year a full mandatory helmet law. This collective action speaks volumes, and several state officials have expressed their displeasure over having to conform to the wishes of Congress.

The "stick" of transferring highway funds to safety accounts is viewed by many as punitive legislation which offers no real benefit to the ultimate consumer, in this case, the motorcyclist. The legislation is often seen as vague and confusing since nowhere in the applicable section of P.L. 102-240 is there a definition of a "helmet." Conversely, there is a definition of "safety belt," but motorcyclists and state enforcement officials are struggling to understand which helmets, previously and currently offered for sale, meet applicable federal DOT standards. Further, NHTSA has applied a far different standard for enforcement of states' helmet laws because it calls for *primary enforcement* rather than the allowable secondary enforcement of seatbelt laws. This double standard does not appeal to most folks' sense of fair play. Nor does the often much greater fine for a helmet infraction versus a seatbelt violation.

Therefore, in regard to Section 153 in ISTEA, we at AMA urge the Public Works and Transportation Committee to incorporate the legislative language in H.R. 799 sponsored by Representative Snowe. This bill would repeal only that section of ISTEA which has effectively removed our members from the democratic process at the state level. By repealing the penalties which have the potential to force states to pass unpopular and punitive legislation, H.R. 799 would normalize the debate in statehouses around the country without binding those bodies in advance.

Motorcycle Accident Victims as a "Social Burden"

Proponents of mandatory helmet laws argue that injured motorcyclists do not pay their hospital bills and have to rely on taxpayer dollars to pay for their health care. The implication is that motorcyclists constitute a "social burden" of some sort. This is not true.

In the past, there have been several studies that have attempted to portray injured motorcyclists as a social burden[1]. One of the most notorious studies was conducted at Harborview Medical Center in Seattle, Washington in 1988. The researchers reported that 63.4 percent of the injured motorcyclists in the trauma center relied upon public funds in order to pay their medical bills. The authors of this study concluded that a mandatory helmet law should be enacted to decrease healthcare costs to the public. The Harborview study was subsequently used to help enact the current helmet law in Washington state.

What the researchers at Harborview failed to report, and what only became clear after the administrator of the trauma center, David Gitch, had testified before the Washington House Ways and Means Subcommittee on Appropriations, was that 67 percent of the *general patient population was also dependent on taxpayer dollars.* Motorcyclists, in fact, relied less upon public funds than the general patient population. Clearly, there are problems evident in our nation's health care system, but these problems should not be attributed solely to a handful of injured motorcyclists who are just as likely to pay their hospital bills as anyone else.

The methodological flaws that were inherent in the Harborview study are also characteristic of the other "social burden" studies like Harborview[2]. When 67 percent of the general patient population is not paying their hospital bills it becomes rather simple to identify a category of inpatients whose activity you do not approve of and define them as a "social burden."

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1 The National Highway Traffic Safety Administration has also produced a document entitled "A Model for Estimating the Economic Savings from Increased Motorcycle Helmet Use" but they state in the introduction that, "The resulting estimate should provide a reasonable 'order of magnitude' indicator of safety and economic benefits that could result from increased motorcycle helmet use. It should not, however, be characterized as a precise prediction of these savings." The figures contain many indirect costs and in no way reflect any accurate measure of direct costs to the state.

2 Studies examined a small sample of injured motorcyclists, lacked a comparison to other injured patient categories, incorporated inappropriate comparison populations, failed to account for helmet use, and/or failed to differentiate between head injury and other types of injury.

In order to address the previous inadequacies evident in studies like Harborview, the University of North Carolina's Highway Safety Research Center compared injured motorcyclists to other categories of injured road-users. The researchers looked at eight Level I and II trauma centers and studied over 800 injured motorcyclists, 9000 motor vehicle crash victims, and 26,540 other inpatients. Their studies reported that:

- Injured motorcyclists were just as likely to be privately insured as other motorists*.
- The cost of treating injured motorcyclists was lower than other road trauma victims*.
- 35.1 percent of the injured motorcyclists had suffered a head injury compared to 41.8 percent of the other head trauma victims**.
- "THERE WERE NO SIGNIFICANT DIFFERENCES IN OVERALL MORTALITY, MEAN TRAUMA SCORES, MEAN HOSPITAL STAYS, MEAN HOSPITAL CHARGES OR PERCENTAGE OF CASES DISCHARGED TO A REHABILITATION FACILITY IN HELMETED AND UNHELMETED PATIENTS, EITHER BEFORE OR AFTER STRATIFICATION."** (emphasis added)
- Motorcycles comprise only 9/10 of one percent of all crash involved vehicles nationwide.*** Given this fact and the findings of the UNC researchers, it is difficult to understand why motorcyclists are being singled out for special treatment.

There is, however, a problem with both insurance availability and spiraling healthcare costs in this country. The GAO estimates that by the year 2000 we will be spending 15 percent of our Gross National Product on health care, an amount comparable to our defense budget of recent years. However, these problems are not the fault of America's motorcyclists.

Motorcyclists have a vested interest in their own safety. Ultimately, the issue is not the efficacy of helmet use but a question of whether adults should be free to make personal decisions regarding their own safety. A recent Motorcycle Industry Council survey identified the average motorcyclist as being 31.5 years of age, married, college educated, with an income slightly in excess of $33,000 a year. In short, motorcyclists have the faculties necessary to evaluate risks and make decisions in regard to their own safety.

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* An Examination of Motorcyclist Injuries and Costs Using North Carolina Motor Vehicle Crash and Trauma Registry Data, Jane C. Stutts.

** The Association of Helmet Use With the Outcome of Motorcycle Crash Injury When Controlling for Crash/Injury Severity, Robert Rutledge.

*** U.S. DOT, General Estimates System, 1990.

GAO Report on Grants and Penalties

In a recent report (GAO/RCED-92-106) the General Accounting Office outlined some salient concerns about the practical effects of the language in ISTEA requiring states to pass mandatory helmet laws.

> "The act's connection between safety belts and motorcycle helmets may limit states' financial incentives to improve safety belt efforts. . . Since more than 10 times as many people have died annually in car and light truck crashes than in motorcycle crashes for the last two years for which data are available, it would not appear productive to condition state incentives for safety belt efforts on what the states may be able to do with motorcycle helmets."

The Good News: Motorcycle Fatalities are Down

According to the latest Fatal Accident Reporting System figures for 1992, motorcycle related fatalities have dropped dramatically since the high water mark of 1980. This precipitous decline represents a 54 percent drop in fatals and is, remarkably, a 21-year-low. Motorcyclist deaths as a percent of all motor vehicle deaths has dropped 40 percent from 1981 to 1992, according to the Insurance Institute for Highway Safety. No other motor vehicle group has registered such an admirable decline in traffic fatalities during the past decade. This data serves to highlight that far more than helmet laws have been responsible for this amazing phenomenon. It is particularly remarkable in light of the recent upswing of new motorcycle sales nationwide and the increased vehicle miles travelled by motorcyclists during the years 1980 to the present.

Need for Updated Research

It has been over 15 years since USC Professor Harry Hurt completed his widely quoted report on the causes of motorcycle accidents and fatalities. For those not familiar with this landmark study funded by NHTSA, over 900 motorcycle accidents were investigated thoroughly to determine primary and secondary causes of motorcycle crashes. It is our view that in order to advance the cause of motorcycle safety with the goal of reducing accidents and thus injuries and fatalities current research must be employed. Many factors have changed significantly since the "Hurt Report" was completed and we believe that new research in needed and warranted. We respectfully suggest that a relatively small amount of money could be used to further motorcycle accident safety countermeasures.

Need for Congressional Recognition of May as Annual "Motorcycle Awareness Month"

While we realize it is not generally within the purview of the Public Works and Transportation Committee to designate days, weeks or months in a particular way, we would naturally welcome the Committee's leadership in urging the House Post Office and Civil Service Committee to commemorate the month of May as "Motorcycle Awareness Month." This, we believe would be consistent with similar efforts to recognize "Boater Safety Week," "Child Safety Seat Week," etc.

National Recreational Trails Trust Fund

This subject will be addressed in this series of hearings by the Coalition for Recreational Trails, to which AMA belongs as a charter member. However, it is our desire to laud this Committee's efforts to include a provision in ISTEA which returns a small portion of gasoline taxes paid by off-highway vehicle recreationists to fund recreational trails for all Americans, and to respectfully submit a technical amendment for this Committee's consideration which would give this program "contract authority." In the short time this program has been operational, it has achieved significant success with very little funding. It deserves more.

Conclusion

Passage of ISTEA has brought a mixed bag of blessings and curses to the motorcycle community in the United States. We remain committed at AMA to advancing both the relative safety and the practicality of operating a motorcycle on our nation's highways and byways. Recognition of motorcycles as legitimate HOV worthy vehicles and making a priority of motorcycle safety programs have been welcome messages from Congress. Also, returning a portion of gasoline taxes from the Highway Trust Fund is viewed very positively by our members who travel off-highway on their motorcycles, even though it has been difficult to convince House and Senate appropriators of the value of the program.

However, as we have since 1966, our members exhort us to oppose the mandatory helmet sanctions which were passed in ISTEA and codified by NHTSA. The "problem" of motorcycle safety, as evidenced by this testimony, is *decreasing rather than increasing*. We remain confident we can extend our recent gains in motorcycle safety without the heavy hand of the federal government requiring the States to pass unpopular and punitive helmet laws.

Therefore, it is our prayer that this Committee and the 103rd Congress remove legislatively the big stick of federal mandates and return to the states the sole authority to govern matters of personal safety. This can be simply accomplished by merely adding the words of H.R. 799 to any bill which is reported out of this Committee.

IBTTA

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Testimony of

Arthur P. Berg

Chief, Opinions & Appeals Division, Law Department

The Port Authority of New York & New Jersey

on behalf of the

International Bridge, Tunnel & Turnpike Association

Before the

Surface Transportation Subcommittee,

Public Works and Transportation Committee

U.S. House of Representatives

Subject: **Designation of the National Highway System**
Hearing Date: **March 3, 1994**

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REPRESENTING THE WORLDWIDE TOLL INDUSTRY • "THERE ARE NO FREE ROADS"

Mr. Chairman and members of the Subcommittee, my name is Arthur P. Berg. I am the Chief of the Opinions and Appeals Division for the Port Authority of New York and New Jersey and I appear before you today as Chairman of The International Bridge Tunnel & Turnpike Association's (IBTTA) Law Committee and a member of the Government Affairs Task Force.

IBTTA is the only trade association representing the world-wide toll industry. Our members consist of toll authorities in 24 countries on six continents. Among these are more than 50 toll agencies in the United States, whose facilities carry more than 3.6 billion vehicles a year.

We appreciate this opportunity to testify on the need for approval of the National Highway System. We commend you, Mr. Chairman, for your leadership in beginning this process in such a timely manner.

IBTTA strongly supports the timely adoption of the National Highway System. In conversations with our members and viewing the proposed system map, most major toll facilities have been included in the state submissions and have thereby been incorporated into the NHS system proposal. Submitted with this testimony is a map developed by IBTTA which notes the locations of U.S. toll facilities. If you compare this map with the Department of Transportation's NHS proposal, you will readily note the high degree of correlation.

Since toll financing usually makes sense only in locations where there is an adequate customer base willing to pay a premium for better access to their destinations, the fact that most U.S. toll facilities are included in the NHS proposal validates the effort to include major transportation corridors and multi-modal portals. Clearly these facilities are of significant importance to the states which developed the initial proposals, as well as to the U.S. DOT.

In our view, the NHS is the cornerstone of a National Transportation System. Without the baseline provided by a clearly defined system and dedicated funding for the core surface transportation network, it will be very difficult to develop the coordinated multi-modal approaches needed to service our nation's travelers. Many of IBTTA's members operate transit systems as well as roads, bridges and tunnels, and we are very supportive of multi-modal approaches to meeting these needs.

Without an approved NHS system to provide the framework for a national road system, we will face the prospect of 50 states addressing their individual and varied needs (transportation, economic development, job generation, etc.,) strictly through flexible funding programs such as the Surface Transportation Program (STP). While the STP is a valuable tool for the states, it alone cannot be viewed as serving a national interest as well as the NHS.

Such a fragmentation would also have an international impact as well. Much attention has been given to the potential economic impacts associated with the approval of the North American Free Trade Agreement (NAFTA) and border-crossing transportation issues have been the focus of much work by the U.S. DOT. Without a national approach to address the transportation needs of those entering, leaving or passing through the U.S., not just at the borders but also in the interior states, it seems unlikely that the full potential benefits can be realized.

Toll Road Development

The development of toll roads continues at a very strong pace. A recent IBTTA report identifies proposals for more than 1,948 miles of road and bridge facilities in 18 states and Puerto Rico at a projected cost in excess of $27 billion. A detailed listing of these projects is attached for your information. Toll projects such as these greatly reduce demand for public financing. Without toll financing, many of these needed transportation projects could advance only if additional state or federal taxes were imposed to support larger transportation improvement programs.

NHS Concerns

While the NHS does represent a narrowing Federal focus on road systems, we would hope that some discretionary authority be granted to the U.S. DOT to include still-to-be-developed facilities and needed connectors on the NHS as appropriate. In the future, there will undoubtedly be instances in which innovatively-financed projects -- unforeseen or considered unlikely during the development of the NHS system proposal -- should be incorporated into the system. As an example, the Dulles Greenway, a privately developed toll road now under construction in Virginia, might warrant inclusion in the NHS at some point in the future.

We would also like to bring to the subcommittee's attention a concern expressed by some of our members that particular bridges or other facilities may have been included in the NHS proposal, yet connecting highways leading to it were not. We would hope that the final NHS proposal would be fully consistent in this regard. This issue reflects some of the public's confusion over precisely which roads and facilities have actually been incorporated in the proposed NHS.

ISTEA Technical Corrections

We are very appreciative of the Subcommittee's successful efforts to see an Intermodal Surface Transportation Efficiency Act (ISTEA) technical corrections measure (H.R.3276) approved last year. We are especially gratified by the consideration given to toll facility concerns in the measure and we are hopeful that the Committee will include these same provisions in the NHS approval package.

Electronic Toll and Traffic Management (ETTM)

On past occasions we have had the opportunity to update the subcommittee on the use of highway technology applications in the toll industry, particularly Electronic Toll and Traffic Management (ETTM) systems. Attached to this testimony is a fact sheet which documents some of the most recent trends in the application of Intelligent Vehicle Highway Systems (IVHS) at toll facilities. Since toll agencies have a very strong incentive to satisfy their customers, as well as bond-holders, they are often on the forefront of adopting new technologies and practices which improve traffic flow and safety, as well as reduce operating and development costs.

ETTM allows more efficient processing of toll transactions, including toll collections. Tolls are paid electronically, a device in the vehicle is scanned as it travels through the toll facility, and the appropriate amount is deducted from the drivers account. At present, more than 20 of some 55 toll authorities in the United States are either using or actively considering ETTM.

Once again Mr. Chairman and members of the Subcommittee, I appreciate the opportunity to appear before you today and would be pleased to respond to any questions you might have.

Statement of Scott Bernstein
representing the
Surface Transportation Policy Project Steering Committee
Center for Neighborhood Technology
Alliance for a Sustainable Materials Economy
before the
House Public Works and Transportation Committee
Subcommittee on Surface Transportation
National Highway System Hearing
March 3, 1994

Good morning Mr. Chairman and Members of the Subcommittee, my name is Scott Bernstein. I am a member of the STPP Steering Committee, and I also represent the Center for Neighborhood Technology and the Alliance for a Sustainable Materials Economy, of which it is my privilege to serve as President and Co-Convener, respectively.

I am here today to talk about two things this morning: (a) the community, metropolitan equity and participatory aspects of the Intermodal Surface transportation Efficiency Act of 1991 (ISTEA) as relates to the authorization of the National Highway System (NHS), and (b) to make a statement of support for full implementation of ISTEA Section 1038, Use of Recycled Paving Materials.

Section 1038 was included in ISTEA to improve the quality and lifecycle of roads, and to address the growing problem of used tires for which some cites is a leading solid waste problem. Extending the lifecycle of our roads by using rubberized asphalt has been shown in California, Arizona, New Jersey, Florida to be economically sound and energy efficient. Both FHWA and the Bureau of Mines studies cite this technology as a primary reason why European roads last twice as long as their US counterparts.

STPP feels that Section 1038 is a prime example of what ISTEA is all about. We would like to call to your attention that planning factor number 12 in ISTEA Section 134 and number 20 in Section 135 call for the use of lifecycle costs in the design and engineering of bridges, tunnels,

or pavement. We understand that some Members of Congress, with the help of some special interest groups, may attempt to modify Section 1038 during consideration of the NHS this year.

Mr. Chairman and members of the Subcommittee, I would like to submit two attachments for the record: first, I would like to submit a statement of support for Section 1038, signed by more than 120 organizations from members of the public health, recycling and environmental communities among others; and second, an article I authored for the American Planning Association's Environment and Development periodical, "Imagining Equity: Using ISTEA and the Clean Air Act.

Rosie Parks and Civil Rights

On December 1, 1955, Rosa Parks was arrested for not going to the back of the bus. December 1, 1995, will be the 40th anniversary of Mrs. Parks' arrest, and the birth of the civil rights movement. Across the nation, civil rights advocates, leaders in the movement for sustainable communities and environmental equity, and urban elected officials are wondering not only whether there will be a bus or train for Rosa to get on, but also whether there will be a commitment to the places where the majority of Americans live and work: our urban centers and traditional rural communities.

When Secretary Pena announced the advent of a National Highway System on December 9, he called it a platform for the creation of a truly intermodal National Transportation System. He noted that every 1% increase in transportation efficiency was the equivalent of $100 Billion benefit to the economy each decade.

So what does the lesson of Rosa Parks and the Montgomery bus boycott have to teach us about designing our transportation system for the coming generation? First, that inequities anywhere are injustices everywhere. In a world where evidence of discrimination had become ubiquitous, that is, everywhere equally available, it was not possible to hide any longer. Second, the call for justice in the south was matched in the north--civil rights were no less an issue north of the line, and the fight for equal treatment under the law was as long and bitter on both sides. Third, that

it was possible to take on the most seemingly intractable of institutions and make progress. And lastly, government's basic responsibilities, in this case transportation, could not be used as a tool of discrimination, nor could such services be rendered under a "separate but equal" doctrine.

Secretary Pena's call for an NTS, along with the stated goal of ISTEA, for greater transportation efficiency, mirrors the goals of the civil rights movement, the environmental movement, and the common sense movement to ensure that economic opportunities are both efficiently and equitably distributed.

Why do we need a National Transportation, as opposed to a National Highway System?

1. Recognizing How We Got to This Point

A. Nationally

Since 1940, at least half of US metropolitan population growth has occurred in the suburbs. The metropolitan area share of the population has growth from one-fourth to more than three-fourths. More than half the US population now lives in metropolitan areas of more than one million people.

In Chicago where I live, and virtually every other metropolitan region, these shifts were facilitated, encouraged, and subsidized by public policies, which in turn were promoted and backed by various development interests. Post World War II federal domestic policies encouraged the development of new ares while providing little incentive for maintaining existing areas. In effect, these included:

- Investing in new highways and later in new airport facilities, rather than in mass transit, intercity rail, and city amenities;
- Extending water and sewer mains and electric transmission lines at low or no cost to rural areas at the urban fringe;
- Making cheap credit available in developing areas while ignoring or even encouraging credit discrimination (redlining) against existing areas;
- Neglecting the successful conspiracy to buy up and abandon much of the existing

inner-city trolley systems and interurban electric railroads;

- Subsuming national policies on materials use and the environment within a dual context of support for extractive industries and expanded foreign trade.

B. Effects on the Windy City

From 1970 to 1990, developed land in the six-county Chicago standard metropolitan statistical area grew 55 percent (46 percent for residential land uses alone) while the population grew just four percent. Northeastern Illinois lost an estimated 444 square miles or one-fourth of its farmland in the same period. Daily vehicle miles traveled grew 49 percent form 1973 to 1990, and with the most rapid growth in recent years.

Between 1970 and 1990, 165 of the area's municipalities, mostly in outlying areas, collectively gained over one million residents. Ninety other municipalities, mostly at or near the region's center, experienced a total net loss of 771,000.

During the same period, the suburban share of the region's employment grew from approximately 44 to 61 percent. Between 1980 and 1990, per capita income increased in 186 municipalities while remaining level or declining in 77 others. Declines were concentrated in colder core communities and increases in newer suburban areas. Manufacturing's share of the jobs in the Chicago economy fell 34 percent from 1969 to 1989.

Between 1950 and 1990, the surface trolley system in Chicago was completely replaced with bus lines, and available heavy rail in the Chicago Transit Authority system was cut by at least 40 miles; annual ridership fell from 330 to 110 rides per person-year. Not only were the air quality consequences of these shifts severe, but the economic consequences for families and households were equally devastating.

The city's Poverty Task Force showed that, in 1990, 23 percent of Chicago's households earned less than $10,000, 33 percent earned less than $15,000, and 51 percent made less than $25,000. It takes the model household, (unfortunately, increasingly a single-parent, two-child household)

at least $20,000 to meet basic needs on a no-frills basis, including the questionable assumption that a $60 monthly CTA pass will meet all transportation needs. Figures from the 1990 census indicate that, for various age and community cohorts, household income in the region is twice that within the city. Overall, poverty is three times higher in communities of color.

The result of all this is that the region must provide services for a developed area that has grown by half with a nearly stagnant population, with an economy that has shifted its base significantly from manufacturing to services and public works, and with a vast increase in the number of governmental units, both municipalities and special districts.

2. The Need to Give ISTEA and the CAAA Amendments a Chance to Work

A. Can We Afford to Develop Inefficiently?

The sprawl which resulted from the trends noted above can no longer be afforded. Recent studies by Apogee Research for the Conservation Law Foundation confirm the findings of Tony Downs in the landmark Real Estate Research Corporation's **Costs of Sprawl** study twenty years ago: the predominant suburban development patterns use anywhere from two to six times the water, energy, materials, and public works facilities as do more compact and traditional forms of urban development. As a result, Metropolitan regions cannot keep pace with rising expenses through traditional revenue (mostly property tax based) revenue sources.

B. Is It Fair or Truly Wise to Equate Economic Development with Real Estate Development?

City governments are largely creatures of their state governments. If geographic sprawl has bred political sprawl, then it seems inevitable that older, more established areas will continue to be taxed to pay for the development and maintenance of new ones. If this means that older taxing jurisdictions do not include the ultimate beneficiaries of taxation for new investment and services, then continued sprawl will inevitably constitute taxation without representation. It would seem that the kind of systems and incentives which evolved after WWII led to this situation, and that Congress in its wisdom crafted the planning, flexible funding and public participation provisions of ISTEA precisely to reverse this trend.

C. Is There Evidence that Highway Dominance of Transportation Investment Actually Adds to National Wealth?

There is certainly evidence that as a nation, we seem to be addicted to providing more transportation than we are willing to pay for directly. Recent studies by the FHWA, the World Resources Institute, and a variety of environmental organizations and consulting firms seem to suggest that the direct expenditures from the Federal transportation trust funds constitute between one-sixth and one-seventh of total direct public expenditures for transportation, which in turn are between one-sixth and one-seventh of the annual direct expenditure of one-trillion transportation-related dollars.

These same studies value the cost of the so-called externalities--that is, the environmental, health, congestion related, etc. costs due to motorized transportation, -- at a level of at least another $500 Billion annually. The effects of these costs are enduring, in some cases permanent and cumulative, and therefore must be seen as something to be avoided at all reasonable costs.

D. Can We Count on Good Road Design and Management Technology to Avoid These Costs?

While the number of persons in the US increased at an annual rate of 1.0% between 1977 and 1990, the number of vehicles increased at a rate of 2.3% annually. Subsequently, the number of vehicle trips increased by 2.7% annually, and the number of vehicle miles traveled at 3.4% annually.

Studies by USEPA indicate that with these growth rates, we have lost the ability to achieve urban clean air attainment through clean car and clean fuel strategies alone. Only by implementing both the kinds of transportation control measures outlined in section 108 (f) of the Clean Air Act Amendments of 1990 and its associated conformity provisions can we look forward to a healthy environmental future.

It has been argued that so-called Intelligent Vehicle Highway Systems technology will enable us to achieve these goals by other means, and indeed, ISTEA authorizes considerable sums in

pursuit of such strategy.

Both the ISTEA Declaration of Policy, and the recent planning regulations speak directly and specifically to achieving distributive equity along race, class and regional lines. As recently noted in the IVHS Review ,

"If publicly-supported IVHS infrastructure serves primarily those users who can afford to purchase on-board computers and crash-avoidance systems, while assigning costs across the entire tax-base, politicians will hear about it. Why should people who can't even afford bus fare pay taxes to support a system that tells the luxury car-owner how to get off a congested highway and drive through their neighborhood? ... As a nation we are used to moving away from our problems, striking out to new frontiers. If the market is allowed to take job growth to the extreme fringe of our metropolitan areas, our center cities may well require full-time military occupation. The fires in Los Angeles are a warning that an escapist strategy no longer works. The costs are too steep and the stakes are too high..."

E. Will Flexible Funding Without Regional Funding Equity Redress These Imbalances? Despite flexible funding provisions, great funding disparities will continue to exist. The Environmental Defense Fund finds, for example, that the poorest fifth of urban residents in Southern California receive only 4% of the area's transportation benefits. Rural areas, where less than a fourth of the nation's total population and 27% of the nation's poor reside, only receive 7% of transportation funds, and find it virtually impossible on low tax bases to meet matching funds requirements.

In Interwoven Destinies: Cities and the Nation, edited by HUD Secretary Henry Cisneros, the American Assembly recently found that core cities continue to be the victims of a number of external forces, including:

- the shift of higher-income groups to the suburbs;
- the migration of many manufacturing and service jobs to outlying areas; and

- federal and state policies regarding highways, mortgage lending, taxation, gasoline pricing and education funding systems that favor suburban areas;

among others. This report, co-authored by many of the nation's preeminent social scientists and developers, envisions center-city dominated metropolitan areas as the key to national economic renewal, and espoused a set of principles which I urge the committee to take into account when thinking about the chose between a highway system and a meaningful transportation strategy; in calling for "leveling of the playing field," it noted that resource redistribution could and should:

- help united cities and suburbs as interdependent thriving metropolitan areas;
- increase core-city funding of public safety programs;
- promote racially and economically integrated private and public housing throughout the metropolitan area that is both affordable to the poor and uplifting to families moving to independence;
- improve funding and programs in core-city schools, which must grapple with the most difficult student populations;
- redress the imbalance between highway and mass-transit funding to make mobility of people, not vehicles, the goal;
- promote region-wide economic development and planning;
- revitalize neighborhoods and downtowns; and
- equalize tax incentives for investment in industry, commerce and housing among cities, suburbs, and non-metropolitan areas.

"Contrary to legislation in the last few years charting new directions for transportation, energy, and clean air, federal funding continues dramatically to favor highways over transit. It thus encourages rather than deters less efficient, less cost-effective settlement patterns while abdicating responsibility for city infrastructure and the mobility needs of the poor. This trend further isolates the poor in the ghettos- inaccessible to jobs in the suburbs- and deters use of the more efficient multiple occupancy vehicles throughout the metropolitan area. Ironically, such policies are contributing also to the rapidly worsening gridlock on our suburban highways and declining rates of speed on such highways as well."

The present Administration, has, in effect, advocated a set of "investment-oriented expenditures" around the themes of infrastructure, education, environment, technology and research. Not only is ISTEA philosophy essentially compatible with such strategy, it is a necessary component.

F. So what needs to be kept in mind when designing a national designation system rooted with "mobility of people, not vehicles" access to necessary jobs and amenities, and evenhandedness of investment in mind:

- retention and maintenance of existing systems which enable ISTEA and CAAA amendment goals to be met must take precedence over new system construction
- the value of centralization, recentralization, and minimization of distance between people and activities must be directly valued and credited in long range transportation improvement plans
- the development of a hierarchy which minimizes transportation demand first, supports multiple-occupant, particularly mass-transit modes second, and new roadways as a distant third;
- the reintegration of transportation planning and investment within an overall framework of redistributive equity along race, class and place lines.

G. Do We Have the Resources to Redirect Metropolitan Renewal Equitably and Rationally?

Yes, if we seen ISTEA and an NTS as setting a tone and context within which rational reinvestment can occur. First, the Community Reinvestment Act offers both a paradigm and a resource for the necessary shift to occur. It is ironic that private banking institutions are now required to disclose the variation between sources of deposits and beneficiaries of credit policy, and that similar requirements do not exist for our public transportation investments.

The nation's lending institutions, due to CRA, are vigorously involved in rational reinvestment in our urban centers-- can we require less of our transportation agencies' investments?

Second, over the past decade the census of community development corporations has grown from

200 to over 2,000-- these essential partnerships between community, government, investors, lenders have become the mainstay capacity for the kind of empowerment that both the President and Congress are calling out for. If community development in conjunction with land use policies, and sensible transportation systems brings the kind of efficiency that is indicated in the planning factors so eloquently factored in ISTEA sections 134 and 135, isn't now the time, during this authorization debate, to explicitly recognize the value of transit- and pedestrian-oriented design and development, and to build off the community-development capacity developed over the past decade rather than to work against it?

Third, it must be recognized that the work that needs doing is in the very places that need work. If the income distribution in Chicago is typical, as we believe, of large urban centers everywhere, then surely an economic development strategy which creates jobs that don't even pay a living wage is a dangerous absurdity.

Happily, the evidence is mounting that in at least two areas, a high-wage, low-waste jobs strategy is possible: in technology and demand reduction systems which improve environment, and in infrastructure-related investment. **This is the kind of stuff that ISTEA represents at the core: a true jobs and environment strategy. By putting the "place" back into marketplace, and by ensuring even (through Section 1038) that construction (which according to the Bureau of Mines represents the biggest demand for all new materials used each year) is environmentally responsible, we ensure that transportation efficiency as called for in the Secretary's NHS/NTS message is not only possible, but is safe, lucrative, and represents an equitable distribution of benefits.**

Fourth, this authorization offers the only near-term opportunity to set efficiency goals. If each percentage point of efficiency is indeed worth one hundred billion dollars per decade in direct benefits alone, then it would behoove this committee to craft legislation which sets achievable goals for a maximum level of this benefit to occur.

Fifth, the committee should consider ways of enabling communities with poor, racially

imbalanced, and aging populations to directly capture the benefit of this efficiency. It's not enough to shift modes in the right direction if the benefits aren't sufficiently geographically targeted to make the difference. It's not enough to rebuild existing rapid transit systems if what results in downsized from the original, and represents less service, fewer stops, or both.
The demographic trends would indicate that automobile dominance when almost half of poverty households already have no access to a vehicle makes no sense. Location-efficient mortgages and single-car/no-car rents and mortgages have been suggested as ways of achieving this. Perhaps tax advantages for location-efficient development, coupled with fuller disclosure of the true costs of transportation systems and their associated development, can start to turn the Titanic of urban sprawl around.

In Chicago and Oakland, California, community-based organizations have prevailed against consideration of service downsizing; instead, CMAQ demonstration funds have been committed to transit-oriented design within a community renewal context, incorporating elements of community policing and job creation as well as pedestrian and bicycle access. In Knoxville, Tennessee and other cities, sensitivity to the growing isolation of our aging population led to new laws requiring the co-location of housing and major food markets, to minimize unnecessary automobile travel.

Fifth, we urge the committee to act as carefully and inclusively as possible in crafting the rules under which citizens influence an NHS/NTS system development.
In a recent review of MPO planning practice conducted for FTA and FHWA by the John N. Volpe National Transportation Systems Center (January 1994), which encompassed nine of the largest metropolitan areas, a review of five major goals ISTEA/CAAA mandated changes revealed a wide disparity of agency performance, particularly in the areas of strategic use of transportation improvement plans within financial constraints and ISTEA planning factors, and public participation.

And finally, we must ensure that what we build with ISTEA funding is longer lasting, environmentally sound, and captures maximum job benefits for communities which need work.

Life Cycle Costs and Maintaining What We Have

In maintaining our infrastructure we must also think about lifecycle costs and cost-effectiveness. For these reasons, we urge the committee to incorporate the following provisions into its NHS designation:

*MPO's should have responsibility for selection on NHS projects.

*NHS routes should not be finalized in a metropolitan area until they are included in a conforming long range metropolitan plan which complies with ISTEA.

*NHS funds should be suballocated to metropolitan areas.

*Performance criteria should be devised for investment in NHS routes.

Life Cycle Costs Proven in Rubberized Asphalt

Section 1038, Use of Recycled Paving Material, is a landmark law. It is the first minimum recycled content requirement passed by Congress and is one of the most significant federal recycling provisions on the books today. Section 1038 is a win-win situation for state and local governments because it improves roads and recycles used tires. It requires all states to meet a minimum utilization requirement for recycled rubber in asphalt pavements. Under the statute, five percent of each state's federally funded asphalt pavement projects must use crumb rubber derived from scrap tires beginning in January 1994. This requirement increases by five percent each year until fully implemented in 1997, reaching a 20 percent minimum requirement.

The U.S. Environmental Protection Agency estimates that 250 million used tires are generated each year. Two to three billion tires already litter the nation, causing costly social waste problems for many state and local governments. Scrap tire stockpiles provide breeding grounds for disease-carrying mosquitoes and rodents. Frequent fires in scrap tire piles release harmful pollutants that pose threats to air quality. The run-off from tire pile fires can also pollute surrounding water sources and contribute to soil contamination. Full implementation of Section 1038 will result in the high-value recycling of approximately 100 million used tires each year.

Not only will Section 1038 help alleviate the massive used tire problem, but it can significantly

improve the quality and durability of our nation's roads. Proper utilization of crumb rubber asphalt decreases road maintenance by increasing resistance to pavement cracking and stress from heavy loads.

The economic development impact of Section 1038 is significant. Full implementation will require the construction of 300 new shredding and crumbing facilities to meet the demand for crumb rubber, creating 3,000 to 5,000 new jobs in and around these operations. Also, the crumbing facilities alone will generate an estimated $200 million in annual revenue to add to local tax bases.

Section 1038 addresses multiple national problems by requiring states to use crumb rubber from scrap tires to improve asphalt pavement performance and durability. It offers a sound solution to the massive tire disposal problem while creating thousands of new jobs.

Congress can and must ensure that any NHS/NTS authorization be predicated upon full implementation of changes in planning and development practice. In its wisdom, the increases provided in planning resources for MPO's and State DOT's should enable the necessary changes to take place, and until there is clear evidence of this change, it should proceed cautiously with consideration of a system of this magnitude.

Citizens nationally are feeling the frustration of hearing from an Administration that advocates empowerment, but knows that empowerment means more than demonstration zones. Please try and remember the old Mark Twain admonition, if your only tool is a hammer you tend to see all problems as nails.

Thank you for the opportunity to testify today.

THE NATIONAL HIGHWAY SYSTEM

Statement
of

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Before the

Subcommittee on Surface Transportation

of the

Committee on Public Works and Transportation

March 3, 1994
10:00 AM

U. S. House of Representatives
2167 Rayburn House Office Building

Mr. Chairman and members of the Subcommittee:

My name is Andy Card and I am pleased to appear here today to discuss the proposed National Highway System (NHS) on behalf of the American Automobile Manufacturers Association. AAMA is the trade association for domestic car and light truck producers. Our members are Chrysler Corporation, Ford Motor Company, and General Motors Corporation.

Mr. Chairman, you may recall, AAMA testified last year before this Subcommittee on the importance of implementing the Intermodal Surface Transportation Efficiency Act (ISTEA), and, in particular, the need to establish the new National Highway System (NHS) as called for in ISTEA.

We have asked to testify today to express our appreciation for the prompt scheduling of these hearings and to urge the Subcommittee and the Congress to act on NHS legislation expeditiously. The submission of a proposed NHS plan to the Congress by the Secretary of Transportation last December, in a timely fashion, was indeed encouraging.

However, we all know that the legislative process can be a protracted one.

The Congressional agenda this year is again crowded with many important issues competing for attention and resolution. Nonetheless, there are few issues that are as intimately connected to the essential economic health and welfare of our nation than what has aptly been called the "backbone" of our transportation system, the country's network of roads and highways.

Unfortunately, things that are "basic" and "essential", such as backbones, tend to be taken for granted. The general public has come to expect there will be an efficient, safe, well maintained highway system available to them throughout the nation at all times of the day and night.

The simple fact is that our highway system is in urgent need of renewal and updating and that's not going to happen unless we all help to make it happen. And, yet, as the members of this Subcommittee know better than most, such a system does not happen automatically, without effort or cost.

The importance of a good highway system to the automobile manufacturing industry may seem self evident. Our customers, of course, depend on such a system to get the best use out of the products we produce, so its very important to us as well.

However, what may be less obvious is that we, as manufacturers, increasingly depend upon the highway system to make possible the production, as well as the delivery of our

vehicles.

In these very competitive times -- when "lean production" and "just-in-time" deliveries are the watch words of the industry -- motor vehicle manufacturers depend on the timely and safe delivery of parts and components to keep the assembly lines moving efficiently -- to hold down costs and to stay competitive, nationally and globally.

Today, over 90 percent of all shipments to AAMA member company plants are "just-in-time" deliveries -- that is a 2 to 3 fold increase in just 5 years.

More than 50 percent of the dollar value of shipments to AAMA plants arrive by truck.

It is little wonder that highway access is a major consideration when locating a new plant.

Simply put, a good highway system is not an option, its a necessity -- a lot of jobs depend upon it.

Direct employment by AAMA members alone totals over 700,000. Another 900,000 supplier jobs are supported by Chrysler, Ford and General Motors. And there's another 600,000 in auto-related employment.

The importance of the highway system to the auto industry, as significant as it is by

itself, is, of course, magnified many times over throughout the entire economy and society in general.

To cite just one set of indicators:

In 1990, highways accounted for 86% of all U.S. passenger and 77% of all U.S. freight transportation expenditures -- $800 billion combined representing 18 % of the Gross Domestic Product.

So the importance of our highways to the purchasers and users of motor vehicles is abundantly clear.

Mr. Chairman, our transportation system moves more people, more goods, greater distances at less cost, with greater safety and the least degree of environmental impact, than any other system on earth. This is a record to build on, not sit on.

But it should also be kept in mind that in the plan submitted to Congress last December, 98 percent of the proposed 159,000-mile NHS is on facilities already serving traffic. Less anyone get the wrong impression, the NHS is an effort to upgrade our roads and not 'pave over' America.

What the NHS is, is an overdue effort:

- to lessen congestion -- which, in turn, will conserve fuel, reduce vehicle emissions, and save billions of dollars in lost travel time;

- to promote needed economic growth;

- to help further reduce traffic fatalities and injuries.

This effort would be needed just based on current conditions and requirements. But, as we all know, the world is not a static place. Fundamental political, economic, technological and social changes are evident everywhere. The collapse of communism, the development of a global economy and communications present major new challenges and opportunities for America. To be competitive in the 21st Century, we will need a 21st Century transportation system and a 21st Century highway system.

Unfortunately, today our highways are beginning to look and feel more 19th Century than 20th Century. Too many of our roads and bridges are in need of repair. And, although we have plenty of potholes this winter, this is more than a pothole patching problem. It affects the competitiveness of our country and the auto industry.

Take the North American Free Trade Agreement. NAFTA is expected to translate into thousands of vehicle exports to Mexico in the first year alone.

This increase in trade will mean new orders for U.S. auto plants, more secure jobs for U.S. workers, and the opening of a major new export market for other automotive products.

To meet that jump in demand we will rely even more heavily on America's highways, which will need significant North-South improvements.

The next hundred years are going to see many changes in transportation and communications. These changes will impact both the highway and the vehicle. Fortunately, ISTEA, through its support for Intelligent Vehicle/Highway System (IVHS) research and development, anticipates this.

One IVHS concept, for example, links the vehicle's electronic system to roadside sensors, satellites and a centralized traffic management system to constantly monitor traffic conditions to minimize congestion.

Changes of this kind will not come overnight. There's usually a big leap from what may be technically feasible and what is economically practical.

What is clear today is that America's Car Companies are moving into the 21st Century aggressively. By joining together in a series of research programs, AAMA member companies are attacking challenges that are facing future vehicles and their use -- in terms of emission control, safety, recycling, and electric vehicle battery development.

In addition, Chrysler, Ford and General Motors have entered into a "Partnership for a New Generation of Vehicles" with the federal government. The long-term goal is to develop automotive technologies to dramatically increase fuel economy, improve safety and reduce emissions while still maintaining affordability, performance and the value features that consumers demand in their vehicles.

To try to accomplish these ambitious goals, the partnership will bring together the best scientists and engineers in government and industry to achieve breakthroughs in new technologies ranging from fuel cells and powertrain concepts to advanced catalysts and lighter materials.

The ultimate outcome is unpredictable, both in terms of timing and results.

But America's Car Companies are looking to the future, both short and longer term.

That future must include a renewed and updated National Highway System.

ISTEA requires that Congress act on establishing a National Highway System by September 30, 1995. In terms of Congressional "time", that's right around the corner. Moreover, Congressional action is not the end of the process, but just the beginning of the implementation phase.

The sooner we begin, the better for the economy and the country.

AAMA appreciates the opportunity to testify today.

TESTIMONY OF JOAN CLAYBROOK, CO-CHAIR

CITIZENS FOR RELIABLE AND SAFE HIGHWAYS (CRASH)

BEFORE THE SUBCOMMITTEE ON SURFACE TRANSPORTATION

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

WASHINGTON, D.C.

MARCH 3, 1994

Citizens for Reliable and Safe Highways (CRASH)

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Thank you, Mr. Chairman. I am grateful for this opportunity to testify on plans for the proposed National Highway System (NHS). I am accompanied today by Dr. Gerald Donaldson, co-chair of CRASH.

Our testimony will focus on making America's highways safer for motorists by curbing the spread of dangerously overweight and overlength trucks. This can be done by capping the length of trailers at 53 feet and the weight of trucks at 80,000 pounds.

The proposed National Highway System will require the expenditure of billions of dollars of federal public funds each year, and the trucking industry will be one of the principal beneficiaries of these public expenditures. Since trucks are a primary cause of damage to our highways and bridges, is it too much to ask that the trucking industry be subject to reasonable limits on their vehicles sizes and weights?

Highway damage, Mr. Chairman, is not the only by-product of extra long and heavy trucks. Far too many motorists are killed or injured each year in truck crashes. In 1992, the most recent year for which figures are available, over 4,400 men, women and children were killed in truck crashes. Every year another 100,000 Americans are injured.

For motorists, trucks remain one of the most serious hazards. Although trucks make up only 3% of the vehicles on our nation's roads and highways and 12% of traffic on Interstate highways, they are involved in 38% of motorist fatalities in crashes involving more than one vehicle.

An important factor in the over-involvement of trucks in crashes is the growing disparity in the size and weight of trucks relative to the automobile. As cars have gotten more fuel efficient and lighter, the trucking industry has pressed for bigger trucks. In addition, our existing highways were simply not designed to accommodate these oversized trucks.

The trucking industry has, over the years, successfully exploited the ambiguities in federal weight and length laws. It has applied pressure on the states to obtain approval for heavier and longer trucks on state highways that are not permitted on federal Interstates. And the trucking industry is never satisfied. In virtually every instance in which it has succeeded in obtaining higher length limits, the trucking industry has followed with pressure to raise the weight limits to accommodate the added trailer capacity. Likewise, the weight increases are invariably followed by demands for greater length to accommodate the additional weight.

As matters now stand, federal weight and length limits that would apply to the NHS make no sense at all.

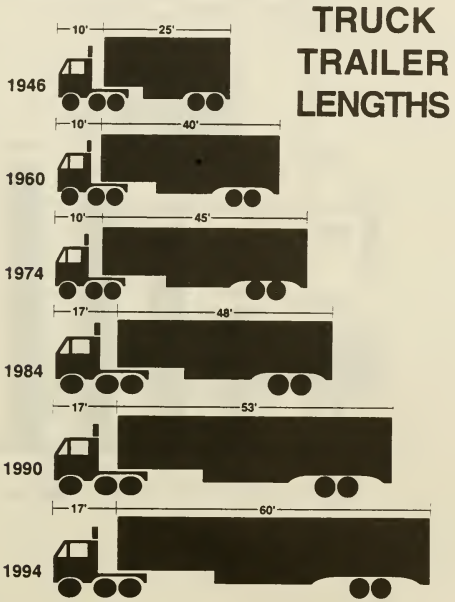
Despite evidence that longer trucks are more dangerous, we have no federal maximum length limit. Instead, the federal government sets a minimum length for trucks.

Despite overwhelming evidence that heavier trucks are more dangerous, we allow the heaviest trucks to operate on the least safe, non-Interstate highways. And the weight limits we now have on Interstates are often ineffective. Many states can simply avoid the current federal weight laws by claiming "grandfather" rights. The Federal Highway Administration has been powerless to enforce the law even when there was no evidence to support the state's claim of grandfather rights. At the request of the trucking industry, federal weight limits include an exception for "non-divisible " loads. But the truckers have exploited this exception to create another loophole.

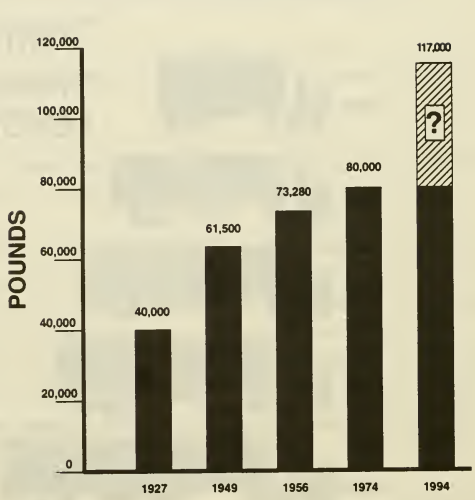
The consequence of this situation is a deadly mix of longer and heavier trucks sharing the highways with smaller and lighter automobiles. Unless Congress acts now, the situation is certain to get worse. The ATA has already endorsed a move to an 88,000 pound weight limit as part of the NAFTA harmonization negotiations. And, no fewer than 11 states have considered legislation sponsored by the trucking industry over the past year to increase the length or weight of trucks.

TRUCKS CONTINUOUSLY GET LONGER AND HEAVIER

Over the past 50 years, there has been a dangerous pattern of ever-increasing truck weights and lengths. The chart below shows the continuous growth in the length of trucks.

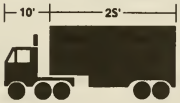


Similarly, trucks have become progressively heavier.



In sharp contrast, automobiles have been getting smaller and lighter since the 1970's.

COMPARISON OF TRUCK—AUTO LENGTHS



1946 TRACTOR WITH 25' TRAILER

1946 BUICK LENGTH = 17.85 FT.

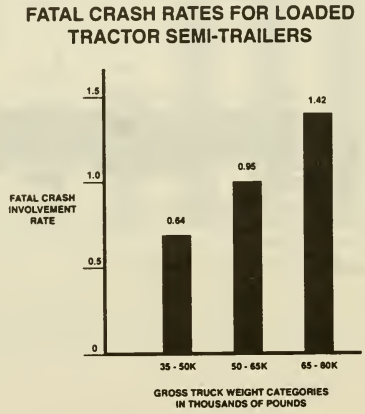
1994 TRACTOR WITH 60' TRAILER

1994 ACCORD LENGTH = 15.33 FT.

Mr. Chairman, there is an immediate need to draw the line on further truck length and weight increases. Already the current situation threatens to get out of hand. For example, in the state of Oklahoma, a new rule has been proposed by the state DOT to increase the maximum allowable length of double trailer trucks to 59 feet 6 inches for each trailer. This is a vehicle nearly 150 feet in length, one-half the length of a football field. These vehicles are nothing less than "highway trains".

HEAVIER TRUCKS ARE MORE DANGEROUS TRUCKS

Truck crash rate studies conclusively show that heavier trucks are more dangerous trucks. The graph below depicts the sharp increase in fatal truck crash rates as trucks get heavier.



As you can see, the fatal crash involvement rate for trucks weighing 65,000 to 80,000 pounds is more than twice as high as the rate for trucks weighing only 35,000 to 50,000 pounds.

There a number of factors which make heavier trucks more dangerous. These are explained in detail in the CRASH white paper I have attached to my testimony. Let me briefly summarize those reasons now.

First of all, heavier truck weights substantially increase the truck rollover rate. Researchers at the University of Michigan's Transportation Research Institute have concluded that the 1974 federal law which increased the maximum truck weight from 73,280 pounds to 80,000 pounds resulted in a 44% increase in the rollover rate of fully loaded trucks. Mr. Chairman, I think this is particularly significant. An increase of less than 7,000 pounds increased the rollover rate by 44%. More recent research shows that increasing gross weight from 80,000 to 88,000 pounds will again increase the rate of rollovers.

Second, heavier trucks are also more likely to be involved in "runaway" crashes caused by brake failures on steep downhill grades. Interviews with truck drivers with mountain driving experience show that one out of every four drivers has lost his brakes at least once during his driving career.

Third: More weight means that for many trucks it will take longer for the truck to come to a stop after the brakes are applied. The rates of fatal crashes in which tractor-semitrailers crashed into the rear ends of other vehicles are consistently higher for more heavily loaded trucks than for more lightly loaded trucks.

Fourth: Trucks designed to carry heavier loads have more jackknife crashes when travelling empty than do trucks designed for lighter loads.

Fifth: Heavier trucks are incompatible with other traffic. Heavier trucks travel more slowly on upgrades. These slower speeds are dangerous. Among other hazards that are created, these slow upgrade speeds on two-lane, two-way highways cause a much higher percentage of illegal passing maneuvers by trailing passenger cars. One study showed that trucks which travel 15 mph below the prevailing speed of other vehicles have crash involvement rates nine times higher than those that travel at the same speed as other traffic.

Also, because of their length and slow acceleration rates, longer and heavier trucks take more time and distance to merge into freeway traffic from an onramp than do smaller and lighter trucks. Acceleration lanes -- that is, merge lanes which allow vehicles coming from onramps to build up enough speed to easily merge with other vehicles -- are designed primarily for cars and, according to the Transportation Research Board, are already too short for even 80,000 pound trucks.

Mr. Chairman, there is no question that heavier trucks cause more crashes, more death and injury, or more damage to our highways and bridges. It is therefore essential that the current federal 80,000 pound limit gross vehicle weight limit (including the current requirements of 23 U.S.C. section 127) which now applies only to Interstates be extended to the entire National Highway System.

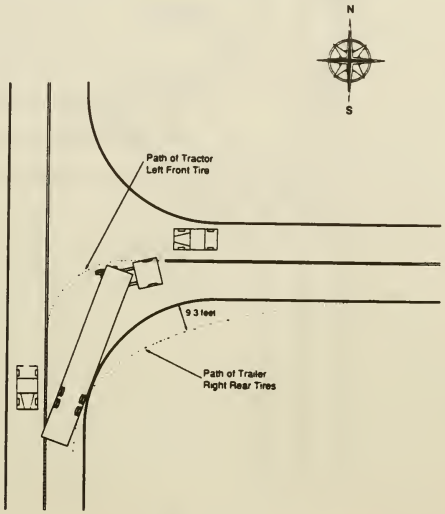
OVERLENGTH TRUCKS ARE MORE DANGEROUS TRUCKS

There are a number of reasons why overlength trucks are more dangerous. These are summarized below.

Offtracking and Swingout Lane-Encroachment

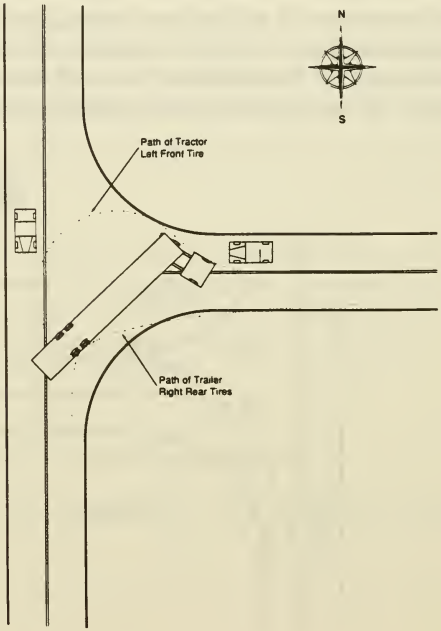
One of the major hazards of overlength trucks results from a tradeoff which must be made by truck drivers between the dangers of "offtracking" and "swingout lane-encroachment". Let me describe these two dangers.

"Offtracking" means that the rear wheels of a trailer do not follow the front wheels of the tractor when making a turn. In order to make a 90 degree intersection turn and minimize the encroachment by the trailer into the oncoming lanes of traffic, a driver of an overlength trailer must, as shown below, allow the trailer to leave the roadway, roll over any curb and plough through whatever stands in its path -- from roadway signs to other objects. This may unintentionally include a pedestrian or a bicyclist.



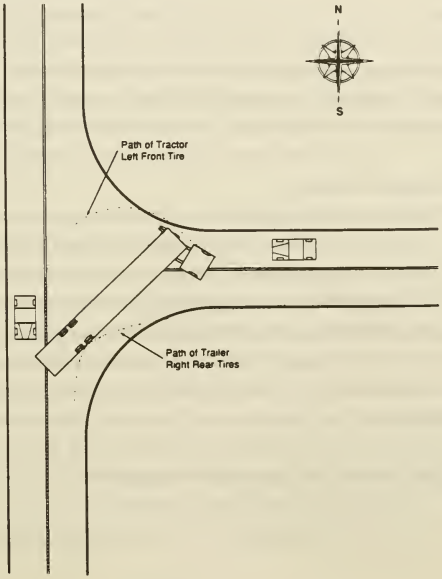
Mr. Chairman, note that the path of the right rear trailer tires are more than 9 feet off the pavement. Note also that the rear of the trailer encroaches two feet into the lane of oncoming traffic.

If the driver tries to prevent the trailer from leaving the road, he must encroach to a much greater degree into oncoming lanes of traffic in one of the two ways shown below.



You will note that the driver first had to swing his tractor to the left two feet in the lane of oncoming southbound traffic before beginning his right turn into the lane of westbound oncoming traffic. This maneuver causes the trailer to "swing-out" five feet -- almost to the middle of the oncoming lane of traffic. The rear end trailer swing-out is extremely hazardous for oncoming traffic since it is totally unexpected and the truck driver himself will frequently not realize that the swing out is going to occur. He will, therefore, not plan for it.

Note also, that the right rear tires of the trailer still leave the roadway.
The driver's only other choice is as shown below:



Here the driver avoided moving the tractor into the southbound oncoming lanes of traffic, but both the tractor and the trailer encroached into oncoming lanes of traffic on the road onto which they were turning. The trailer also encroaches 3 1/2 feet into the southbound oncoming lanes of traffic. The left front wheels of the tractor goes over the curb and leaves the pavement on the left and the right rear tires of the trailer go over the curb and leave the pavement on the right.

Here the tractor and the trailer encroached into oncoming traffic lanes on the road onto which they were turning.

Severity

Crashes with these overlength trailers are more likely to be severe. In a jackknife accident, for example, the extra length of the trailer means the overlength trailer is more likely to be thrown into adjacent lanes of traffic and to hit other vehicles.

Lane Changes and Merging

Drivers of overlength trucks find it more difficult to merge into freeway traffic from an onramp. They frequently have to slow or stop to find a gap in traffic which is large enough to allow them to move into. This results in traffic backup and disruption at the interchange. It also creates the potential for following motorists to hit the rear end of overlength trucks which suddenly slow or stop. Moreover, slowing or stopping the truck effectively shortens the length of the acceleration lane provided for merging. These lanes are almost always of substandard length even for trucks attempting mergers at reasonable speeds.

Overlength trucks have the same problem changing lanes.

HEAVIER TRUCKS WOULD RAPIDLY DESTROY THE NHS

Mr. Chairman, upgrading the designs and providing federal funding for an additional 110,000 miles of highway fulfills a long-cherished dream of the trucking industry for new commercial networks throughout the continental U.S.

Hundreds of these upgraded routes will become major truck traffic corridors. Some formerly minor highways will experience double and triple the heavy truck percentage in their vehicle streams.

These dramatic truck traffic increases will cause more crashes and more severe crashes. It is well known that when the percentage of trucks in traffic exceed 10%, severe crashes rise disproportionately.

Although many of these routes will receive substantial design improvements, they will generally have pavement durability which is inferior to that of the Interstates.

So, in addition to our fears of increased crashes, we are also concerned that we will spend billions of dollars of public funds to create the NHS and then allow heavy trucks to destroy that system. This Subcommittee is well aware of the amount of highway damage caused by trucks today. The American Association of State Highway and Transportation Officials showed many years ago that one 80,000 pound 5-axle tractor-semitrailer will do as much damage to the pavement as 9,600 automobiles.

And the rate at which paved surfaces deteriorate increases exponentially in relation to the weight of the vehicle running over it. This means, for example, that a 20% increase in the current weight limit will cause 75% more pavement wear. Should we expect the public to pick up the cost of the additional highway damage from heavy trucks? According to the Federal Highway Administration, the amount paid by trucking

companies in taxes is only 60% of the cost of the damage that they cause to our highways and bridges.

CLOSE THE SYMMS AMENDMENT LOOPHOLE

These considerations show how our non-Interstate highways are at risk of major increases in truck crashes and pavement damage. But weight abuses and legal loopholes have combined to ensure that both safety and pavement suffer from big trucks on our Interstates as well.

Earlier I alluded to the loopholes that allow states, under pressure from trucking industry, to exceed the federal 80,000 pound weight limit. The first of these is the "Symms Amendment" to the grandfather provision of Title 23, section 127. In 1956 Congress passed legislation to build the Interstate highway system. At the same time, it passed a truck weight limit law on the Interstates to protect that huge investment from the pavement and bridge damage caused by heavy trucks. Since some states, however, already had state laws with higher weight limits than the new federal limit, those states had their higher limits grandfathered.

Until 1982 the determination of whether a state had grandfathered rights to issue special permits allowing trucks heavier than the federal limit on the Interstates was made by the Secretary of Transportation through the Federal Highway Administration.

In 1982, however, Senator Steve Symms sponsored an amendment which has created complete chaos. It gives each state highway department absolute discretion to determine whether it has grandfather rights, no matter how tenuous or blatant the claim.

The result has been an explosion in the number of overweight trucks on Interstates. The number of divisible multi-trip permits for overweight trucks has increased by more than 300 % since the Symms Amendment was added to section 127. And FHWA, despite

possessing proof that state grandfather claims are inaccurate, remains powerless to protect the Interstates and the motoring public because of the Symms Amendment.

The Symms Amendment must be repealed now.

CLOSE THE NON-DIVISIBLE LOAD LOOPHOLE

The federal weight limit law allows states to issue special overweight permits for truck loads which "cannot be easily dismantled or divided". This exception to the federal weight limit was intended to accommodate the movement of very heavy loads such as power generators that simply cannot be divided to meet weight limits.

Under pressure from the trucking industry, this "non-divisible load" exception has been egregiously abused. Overweight permits are now routinely given by many states for clearly divisible loads such as milk, grain and sugar beets.

The non-divisible load exception must be much more narrowly defined so it cannot be abused. There must be significant penalties, making its violation less likely. Congress denounced this abusive exploitation of grandfather rights in the 1991 ISTEA and called on the Federal Highway Administration to curtail the willy-nilly issuance of multiple trip permits for overweight divisible loads. To date, however, the agency has not acted.

CONCLUSION

Mr. Chairman, Congress must act now to stop the spread of overweight and overlength trucks. CRASH is proposing that the NHS legislation include provisions to:

First, extend the current federal 80,000 pound gross vehicle and axle weight limits to the entire NHS.

Second, cap the length of trailers used on the NHS at 53 feet.

Third, repeal the Symms Amendment that takes the discretion away from the U.S. DOT to review state claims of grandfather rights.

Fourth, revise the definition of non-divisible loads to prevent the use of this exception to load overweight trucks with commodities or containers which could clearly be divided.

Thank you very much for the opportunity to testify today. We look forward to working with you and other members of the Committee on the necessary improvements to public safety, highway preservation, and highway sanity.

CRASH CITIZENS FOR RELIABLE AND SAFE HIGHWAYS

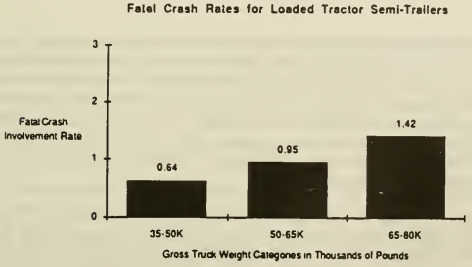
OVERWEIGHT TRUCKS ARE MORE DANGEROUS TRUCKS

American roads and highways are already extremely dangerous. From 1977 through 1988 more American men, women and children were killed in crashes on U.S. highways than died in all U.S. wars from the Revolutionary War through the Vietnam War.

Trucks cause a disproportionate part of that carnage. Each year about 4,000 Americans die and 100,000 are injured in truck crashes.

I. MORE WEIGHT MEANS MORE CRASHES

Truck crash rate studies conclusively show that the fatal truck crash rate increases when heavier loads are put in trucks. The following graph shows how rapidly the death rate goes up as loaded trucks get heavier.[1]



[1] K.L. Campbell et al., "Analysis of Accident Rates of Heavy-Duty Vehicles", University of Michigan Transportation Research Institute, Report No. UMTRI-88-17, Ann Arbor, April 1988, p. 65.

The meaning of "fatal crash involvement rate" in the horizontal axis on the graph on the preceding page is explained in footnote 2.[2]

The following sections of this white paper sets forth the many reasons why heavier trucks crash more frequently than less heavy ones.

1. Rollover

Heavier trucks have more rollover crashes.

Because of their higher centers of gravity, trucks are more susceptible to overturning during steady turns or sudden obstacle avoidance maneuvers than are passenger cars.

The center of gravity is, however, not the only factor that influences susceptibility to rollover. Engineering research at the University of Michigan's Transportation Research Institute has shown "categorically" that the higher a truck's gross vehicle weight, the greater its susceptibility to rollover.[3] The results of that engineering research is shown graphically on Appendix A to this paper.

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[2] The horizontal axis on the graph on the preceding page (the fatal crash involvement rate) represents whether a truck weight category is over or under-represented in fatal crashes relative to the fatal crashes of other weight categories. A fatal crash involvement rate of 1.0 for a truck weight category would mean that such category had a fatal crash rate per million miles travelled that is equal to the average for all truck weight categories. An involvement rate of 1.42 means that this category had a crash rate per million miles travelled that is 42% above the average. An involvement rate of 0.64 means that the crash rate for this category is 36% below the average.

[3] "Gross weight increases . . . categorically reduce the roll stability of the vehicles studied. . . . Gross weight increases are seen to have a definite and consistently degrading influence on rollover threshold." (R.D. Ervin et al., "Influence of Size and Weight Variables on the Stability and Control Properties of Heavy Trucks," Final Report, Vol I, University of Michigan Transportation Research Institute, March 1983, pp. 79 and 82.) Note in the chart in the Appendix to this White Paper that a tractor semi-trailer with a 73,300 pound gross weight has a rollover threshold of .400 g's. The same tractor-semitrailer with at 92,000 pound gross weight has a rollover threshold of .275 g's, 30% worse than that of the 73,300 pound truck. (Id. Figure 30, p. 80.) An arithmetic degradation in the rollover threshold causes an almost geometric increase in rollover accidents.

Crash rate studies lead to the same conclusion as do the engineering studies. Actual truck rollover crash rates increase as the gross vehicle weight increases.[4]

Indeed, the crash rate data studied together with University of Michigan Transportation Institute computer simulations show that the 1974 federal law which raised the maximum permitted gross vehicle weight from 73,000 pounds to 80,000 pounds resulted in a 44% increase in the rollover rate of fully-loaded trucks.[5]

2. Runaway Trucks

Heavier trucks would cause more "runaway" crashes on downhill grades. Because of the vast number of hills and mountains in this country trucks must descend many steep downhill grades.

Increased truck weights causes truck brake temperatures to increase during downhill descents.[6] This can lead to total brake failure and runaway crashes.

The crash data show that heavily loaded trucks are over-represented in runaway truck crashes relative to less heavily loaded ones.[7] This means that the probabilities of runaway crashes on downhill runs will increase as truck gross weights increase.[8]

The probability of a runaway today (before a legal increase in gross vehicle weight) is already one runaway in every 5,000 downhill trips.[9] Interviews of truck drivers with mountain driving experience show that one out of four has lost his brakes during his driving career.[10]

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[4] R.D. Ervin et al., "Influence of Size and Weight Variables on the Stability and Control Properties of Heavy Trucks," Final Report, Vol. I, University of Michigan Transportation Research Institute, March 1983, pp. 82-84. See also K. L. Campbell et al., "Analysis of Accident Rates of Heavy-Duty Vehicles," University of Michigan Transportation Research Institute, Report No. UMTRI-88-17, Ann Arbor, April 1988.

[5] R.D. Ervin et al., supra note 5, p. 84.

[6] Transportation Research Board, National Research Council, Truck Weight Limits,Special Report 225, Washington, D.C., 1990, p. 119.

[7] P.S. Fancher et al., "Retarders for Heavy Vehicles: Evaluation of Performance Characteristics and In-service Costs," Phase I, Technical Report, Highway Safety Research Institute, The University of Michigan, February, 1981, pp. 90-91.

[8] Transportation Research Board, supra note 6, pp. 119-120.

[9] P.S. Fancher et al., supra note 7, p. 96.

[10] Id., p. 75.

3. Braking Dangers

a. Longer Stopping Distances

More weight means longer stopping distances for trucks with out-of-adjustment brakes.

Unfortunately, truck brakes are not well-maintained in the United States. In 1992, twenty-four percent of the trucks stopped and inspected by the highway patrols and state police forces of our country had maintenance problems so severe that they were ordered off the road. The problem with most of those poorly maintained trucks was that their brakes or suspensions were unfit for further travel.[11]

If a truck's brakes are not properly adjusted, the truck's minimum stopping distance will increase approximately in direct proportion to the increase in the truck's gross weight.[12] If the 80,000 pound weight limit currently in force on Interstates is not made applicable to the entire National Highway System, many trucks will be substantially heavier than they would otherwise be and will have poorly adjusted brakes. Those trucks will travel substantially further after the drivers put on their brakes than they would have traveled had the 80,000 pound limit been applied.

Truck crash data show that heavier trucks lead to more crashes caused by those trucks' inability to stop in time. A University of Michigan study concluded that the rates of fatal crashes in which tractor-semitrailers rear-ended other vehicles were consistently higher for more heavily loaded trucks than for more lightly loaded trucks.[13]

Note that this data comes primarily from states that have 80,000 pound maximum weight laws. The University of Michigan study generally compared crash rates for trucks weighing 30,000 or 40,000 pounds against crash rates for trucks weighing 65,000 or 80,000 pounds.

b. Overbraking and Jackknifing

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[11] Federal Highway Administration, Office of Motor Carriers, Accomplishments and Effectiveness Annual 1992 Report, Attachment 111.

[12] R.D. Ervin et al.,"Influence of Size and Weight Variables on the Stability and Control Properties of Heavy Trucks," Final Report, Vol. I, University of Michigan Transportation Research Institute, March 1983, pp. 55 and 76.

[13] P.S. Fancher et al., "Turner Truck Handling and Stability Properties Affecting Safety," Final Report, Volume I, University of Michigan Transportation Research Institute, 1989, p. 122.

A 120,000 pound weight limit can lead to more jackknife crashes when trucks travel empty.

Truck braking systems are designed to provide adequate braking capacity when the truck is fully loaded. 120,000 pound trucks must have brakes designed to stop 120,000 pound loads. Brakes designed for 120,000 pound trucks are more likely to apply too much torque to the tires when trucks are empty than brakes designed for 80,000 pound trucks. This frequently leads to jackknifing crashes.[14]

4. Steering Dangers

The steering sensitivity of tractor-semitrailers decreases sharply as the gross vehicle weight increases.[15]

Crash data show that the lower the steering sensitivity, the higher the fatal single vehicle truck crash rates.[16] Thus, increases in truck weight will translate into more single vehicle fatal crashes due to poor steering sensitivity.

5. High Speed Offtracking

Offtracking means that the rear wheels of a trailer do not follow the front wheels of the tractor. High speed offtracking results when a tractor-semitrailer goes around a curve or a freeway exit ramp at or near highway speeds.

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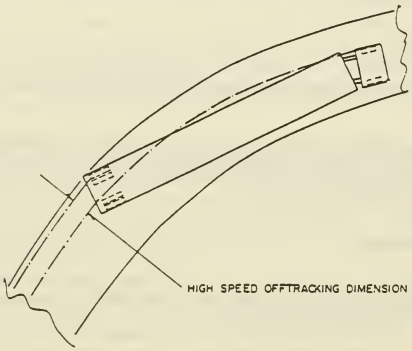
[14] Transportation Research Board, National Research Council, Truck Weight Limits, Special Report 225, 1990, p. 111. Note that loaded trucks seldom jackknife. Jackknife is usually initiated by premature lockup of the drive axles of tractors hauling empty trailers. P.S. Fancher et al., "Vehicle Design Implications of the Turner Proposal," University of Michigan Transportation Research Institute, September 14, 1989, text accompanying Figure 8. Heavier trucks require more torque capacity than do lighter trucks. When the torque level applied to tires becomes too great, given the load on those tires, lockup and loss of control occurs. R.D. Ervin et al., supra note 4, p.52.

[15] Fancher et al., 1989, supra note 9, pp. 92 and 96.

[16] Id., p. 128.

High speed offtracking (diagramed below) is dangerous. When a tractor-semitrailer is traveling on a curve at highway speeds on the winding mountainous roads, the back of its trailer could sideswipe other vehicles traveling in adjacent lanes or stopped cars sitting on the highway shoulder. When trucks negotiate freeway exit ramps at high speeds, the tires of the trailer's rear axles may strike the curb, leading to a rollover.



High speed offtracking for tractor-semitrailers increases as gross weight increases.[17]

6. Slow Speed on Upgrades.

Trucks typically accelerate more slowly than cars and have more difficulty maintaining desirable speeds on long, steep upgrades. The most important factor affecting truck speed on upgrades is the weight-to-horsepower ratio (gross truck weight divided by net horsepower).[18]

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[17] Fancher et al., 1989, supra note 9, p. 74.

[18] Transportation Research Board, National Research Council, Truck Weight Limits, Special Report 225, 1990, p. 117.

Slower speeds are dangerous.

They lead to more sudden brake applications, more overtaking and more lane changing attempts by vehicles stuck behind the slowly moving trucks. These slow truck speeds also cause disruption as the trucks themselves change lanes.

Studies demonstrate that these slower speeds are much more dangerous than is commonly understood.

A University of Texas study concluded that trucks which travel 15 mph below the prevailing speed of other vehicles have crash involvement rates **nine** times higher than those that travel at the same speed as other traffic. The same study found that the crash involvement rate is **15 times** higher if the speed differential is 20 mph.[19]

Data on rear-end crashes compiled and analyzed in a U.S. Government study showed that the rates of rear-end crashes increased sharply when speed reductions exceeded 20 mph.[20]

7. Unsafe Merging and Lane Changing

Because of their length and slow acceleration rates, tractor-semitrailer trucks take longer to merge into freeway traffic from an onramp than do cars and small trucks. Acceleration lanes (merge lanes which allow vehicles coming from onramps to build up enough speed to easily merge with other vehicles already on the freeway) are designed primarily for cars and are already too short for 80,000 pound trucks.[21]

Heavier truck weights will mean that trucks will have to slow down or stop even more frequently than they do now to find a gap in traffic large enough to allow them to merge. This will result in traffic backup and disruption. It will also increase the probabilities of crash by increasing levels of traffic conflicts.[22]

To compensate for inadequate acceleration lane length, truck drivers may have to speed up while traveling the latter portion of interchange ramps to gather speed high enough for

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[19] C. M. Walton and O. Gericke, "An Assessment of Changes in truck Dimensions on Highway Geometric Design Principles and Practices," The University of Texas Center for Transportation Research, Austin, 1981.

[20] D. Solomon, "Accidents on Main Rural Highways Related to Speed, Driver and Vehicle," U.S. Department of Commerce, 1964.

[21] Transportation Research Board, supra note 6, p. 119.

[22] Id. at p. 118.

merging. Especially on ramps with sharp curves, this can threaten loss of control on the curves.[23]

Heavier truck weight causes similar problems when truck drivers need to change lanes on busy freeways.

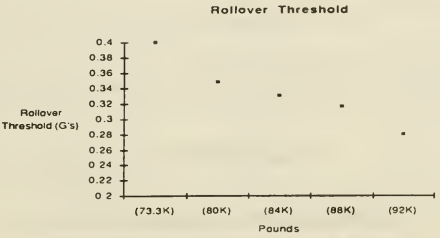
III. CONCLUSION

Studies conducted by government agencies, university research centers and independent boards demonstrate that an increase in gross vehicle weight would substantially increase the likelihood of truck crashes throughout the country. Heavier trucks would be more susceptible to rollover, runaway, serious braking problems, merging and other problems. The Congress should reject any proposal to allow overweight trucks on our nations highways.

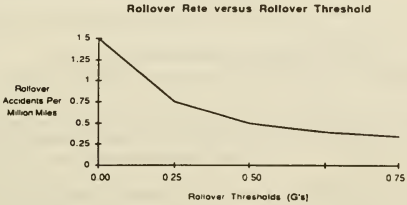
[23] Transportation Research Board, supra note 6, p. 119.

APPENDIX

The following chart shows the "rollover threshold" for tractor-semitrailer trucks at gross vehicle weights varying from 73,300 to 92,000. Rollover threshold represents the amount of force that a tractor-semitrailer can withstand when going around a curve or making a sudden obstacle avoidance maneuver without rolling over. The lower the rollover threshold, the more likely it is that a truck will rollover.[24]



The following graph shows that as the rollover threshold for a tractor-semitrailer becomes lower (worse), the rollover crash rate increases at an almost geometric rate.[25]



[24] R.D. Ervin et al., supra note 3, figure 30, p. 80.

[25] P.S. Fancher et al., "Turner Truck Handling and Stability Properties Affecting Safety," Final Report, Vol. I, Technical Report, University of Michigan Transportation Research Institute, July 1989, Figure 3.1, p. 9.

TRUCK TRAFFIC ON US 189: A RE-EVALUATION OF DATA AND LEGAL ISSUES

Conducted by:

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August 12, 1992

EXECUTIVE SUMMARY

SAFETY ISSUES

- Accident rate on University Avenue (US 189) through Provo City is very high, about twice as high as expected for Utah urban arterials. The overall accident rate for this road is 5.7 accidents per million miles of vehicle travel. The accident rate for trucks is exceptionally high at 8-10 accidents per million miles traveled.

- Accidents on US 189 involving trucks tend to be serious. Forty to fifty percent of accidents involving trucks result in personal injury or death.

- Four elementary schools, one middle school, and two high schools exist within five blocks of University Avenue in Provo. The elevated number of accidents occurring on this portion of University Avenue places the students of these schools at unwarranted increased risk.

- It is important to reduce truck traffic through Provo and Orem in order to increase safety on these roads.

INTERSTATE TRUCK TRAFFIC IN PROVO CANYON

- Approximately 20% of all trucks traveling west on I-80 at Silver Creek Junction divert along US 40. This estimate is likely low since it is based upon Sunday counts with construction underway in Provo Canyon. It is likely that weekday numbers during non-construction periods may be significantly higher.

- Ninety percent of the trucks that divert onto US 40 from I-80 are out-of-state trucks.

LEGAL ISSUES ASSOCIATED WITH RESTRICTING INTERSTATE TRUCK TRAFFIC

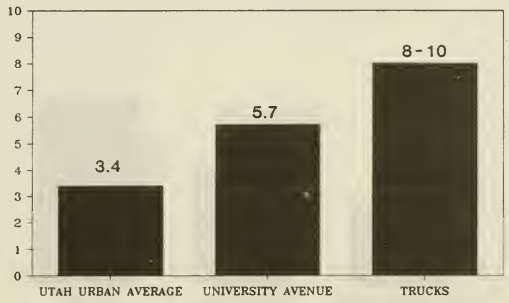
- Several states have successfully restricted interstate traffic to improve safety and air quality and to reduce congestion. Furthermore, in several instances, states have successfully restricted non-destinational trucks.

- Some of these restrictions imposed by states have been challenged in court and have been found to be legal.

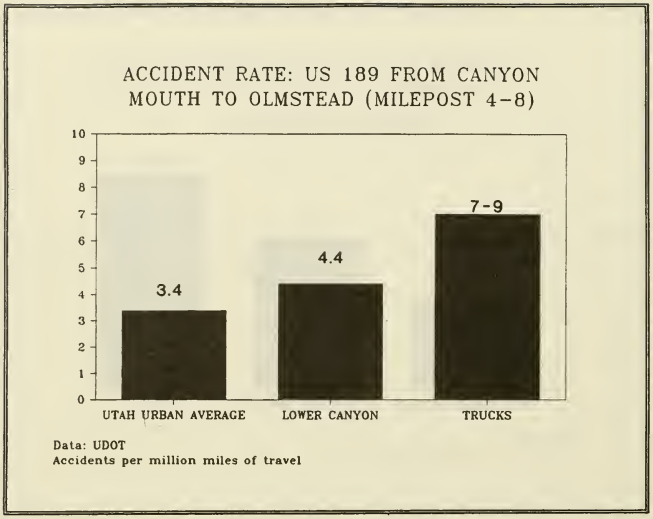
CONCLUSION

- Because of the risks associated with elevated truck traffic on US 189, we recommend that non-destinational trucks remain on the interstate highway system unless making a local delivery.

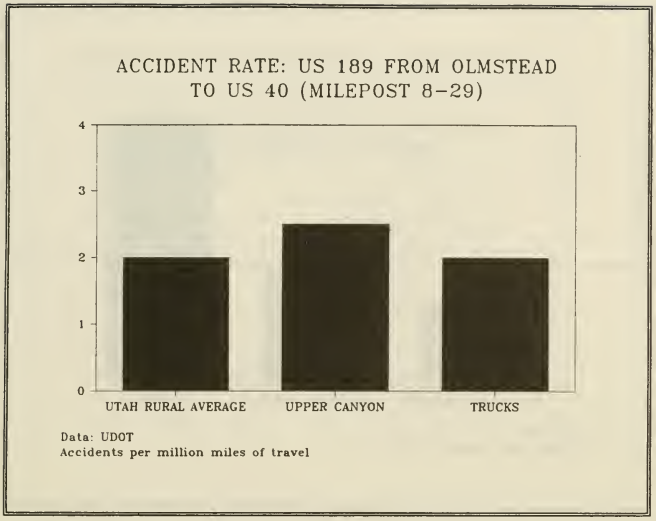
SAFETY ISSUES



- The accident rate for US 189 through downtown Provo City (University Avenue milepost 0-4) is significantly higher than the Utah average for both trucks and automobiles.
- One third of the accidents involving trucks result in at least one person being injured.
- Since heavy trucks have less than half the stopping capacity of automobiles, it is especially dangerous for these large vehicles to travel through congested cities. This is especially important in Provo City due to the large concentration of students and pedestrian traffic associated with University Avenue.



- The accident rate for US 189 through residential Provo City (University Avenue milepost 4-8) is higher than the Utah average for both automobiles and trucks.
- One third of the accidents on this section of highway result in at least one person being injured.
- According to the USDOT, one in every three large trucks will be involved in an accident each year. It is unreasonable to route these trucks through city and residential areas.

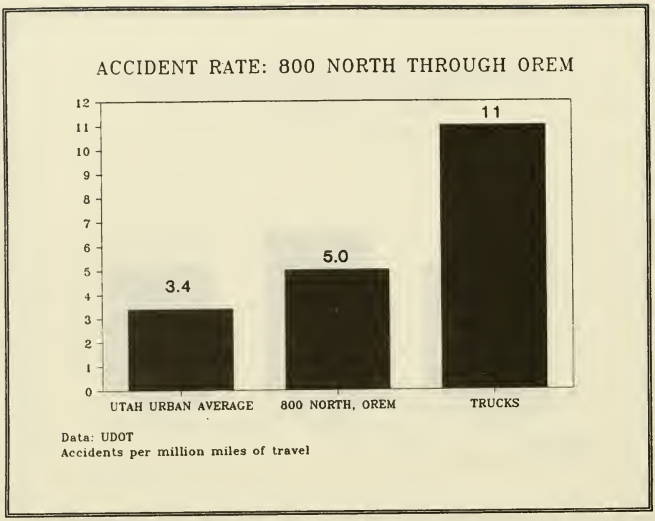


- The accident rate for US 189 through Provo Canyon is slightly higher than the utah average. From 1985 to 1990 at least 55 accidents occurred in the canyon involving large trucks.

- Over 40% of the accidents involving large trucks result in one or more person being injured.

- Forty percent of the trucks involved in accidents in Provo Canyon were cited for excessive speed.

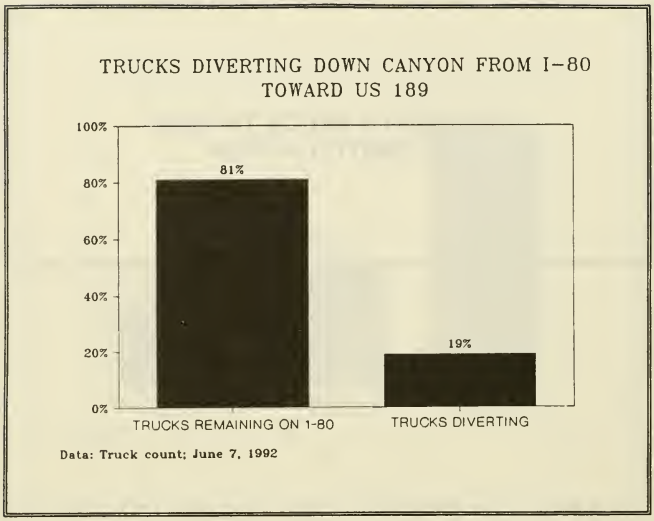
- About one half of the accidents involving large trucks resulted in the truck overturning off of the highway. Such roll overs are especially alarming since many of the trucks traveling US 189 carry hazardous substances that pose serious public health risks. The integrity of the Provo River ecosystem is also threatened by such accidents. The recent roll-over of a large truck into the Provo River emphasizes this point.



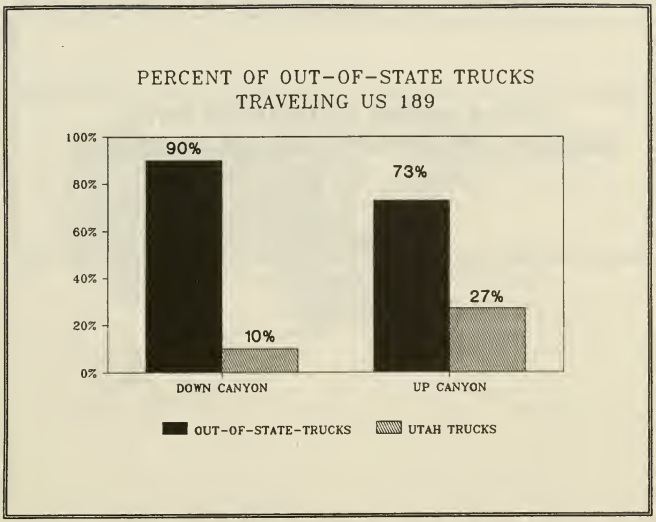
- The accident rate for 800 North, Orem is higher than the Utah average for both automobiles and trucks. Over the past three years, this section of highway averaged more than 125 accidents per year.

- One third of the accidents on this section of highway result in at least one person being injured.

INTERSTATE TRUCK TRAFFIC IN PROVO CANYON



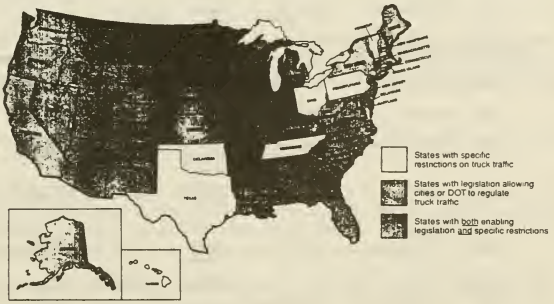
- According to a recent truck survey at Silver Creek Junction, approximately 81% of the trucks traveling westbound on I-80 remain on the interstate.
- The remaining 19% divert southbound on US 40 toward US 189.
- This estimate is likely low since it is based upon Sunday counts with construction underway in Provo Canyon. It is likely that weekday numbers during non-construction periods may be significantly higher.



- According to a recent truck survey, 90% of trucks that divert southbound (down canyon) onto US 189 are out of state. The remaining trucks are licensed in Utah.
- According to a recent truck survey, 73% of trucks that divert from I-15 northbound (up canyon) on US 189 are out of state. The remaining 27% are licensed in Utah.

LEGAL ISSUES ASSOCIATED WITH RESTRICTING INTERSTATE TRUCK TRAFFIC

Composite of legislation and local regulation of truck traffic


States with specific restrictions on truck traffic
States with legislation allowing cities or DOT to regulate truck traffic
States with both enabling legislation and specific restrictions

- Several states have successfully restricted interstate traffic to improve safety and air quality and to reduce congestion. Furthermore, in several instances, states have successfully restricted non-destinational trucks.
- Some of these restrictions imposed by states have been challenged in court and have been found to be legal.
- The Table on the following page outlines specific details and reasons for restricting interstate truck travel in several states.

REGULATIONS ON TRUCK TRAFFIC

STATE	ROAD	VEHICLE RESTRICTED	EXEMPTIONS	TYPE	ALTERNATE ROUTE	REASON	FOR
Ark.[1]	city streets	trucks over 1/2 ton	trucks with local business	Texarkana city ordinance	roads that bypass city	street preservation; public health; safety	fines
Cal	I-8	trucks over 1 ton from 7 to 9 a.m. Mon. thru Fri.		San Diego city ordinance	I-5	aesthetics; congestion	fines
Cal.[1]	city streets	trucks over 3 tons	trucks with local business	Redwood city ordinance	roads that bypass city	street preservation; safety	fines
Cal.[1]	city streets	trucks over 17,000 pounds	by permit	San Bruno city ordinance	designated truck routes	street preservation	fines
Colo.[1]	county streets	trucks over 10,000 pounds	trucks with local business	Jefferson County ordinance	non-residential streets	health; safety air quality	fines
Del.[1]	state highway	trucks over certain weights	trucks with local business	New Castle city ordinance	roads that bypass city	public safety & welfare	fines
Ga.	I-75; I-85; I-20	all through trucks over six wheels	trucks with local business	DOT by authority of Georgia legislature	I-285	congestion; safety	fines
Ill.[1]	city streets	trucks over 8,000 pounds	trucks with local business	Carpenter-sville city ordinance	roads that bypass city	safety; noise; street preservation	fines
Ill.[2]	county highways	trucks over certain weights	by permit	DeKalb county ordinance	interstate	safety; street preservation	fines
Kan.[2]	city streets	commercial trucks		city ordinance	roads that bypass city	safety; congestion	fines
Ky.	I-71; I-75	trucks with semitrailers	trucks with local business	DOT by authority of Kentucky legislature	I-275	congestion; safety	fines
Mich.[1]	state highways	trucks over certain weights		Dearborn city ordinance	roads that bypass city	street safety	fines
Mich.[1]	city streets	"double bottom" equipment	trucks with local business	Fenton city ordinance	US-23	noise; dust street preservation	fines
Neb.[1]	city streets	trucks over 5 tons	trucks with local business	Ashland city ordinance	roads that bypass city	safety; street preservation	fines
N.H.	state highways	trucks over 73,280 pounds	trucks with local business	state statute	interstate	street preservation; safety	fines
N.Y.[1]	city streets	trucks over 4 tons	trucks with local business	Roslyn Harbor city ordinance	roads that bypass city	safety; noise	fines
Tenn.[1]	I-440	trucks, buses, and other commercial vehicles		state statute	other interstate routes	air quality; safety; aesthetics	fines

1. Regulation upheld in judicial proceedings

2. Regulation upheld in an opinion by the Attorney General of the regulating state.

CONCLUSIONS

- According to the USDOT, one in every three large trucks will be involved in an accident each year. It is unreasonable to route these trucks through city and residential areas.

- The Congressional Office of Technology Assessment reports that interstate highway systems, which are built to the most stringent safety standards, are safest for heavy trucks. Truck accidents on these roads occur at the lowest rate of any type of highway in the United States.

- Tractor-trailer trucks are more than three times as likely to be involved in fatal crashes as passenger cars (Eicher et al., NHTSA).

- Accident rate on University Avenue (US 189) through Provo City is very high, about twice as high as expected for Utah urban arterials. The overall accident rate for this road is 5.7 accidents per million miles of vehicle travel. The accident rate for trucks is exceptionally high at 8-10 accidents per million miles traveled.

- Accidents on US 189 involving trucks tend to be serious. Forty to fifty percent of accidents involving trucks result in personal injury or death.

- Four elementary schools, one middle school, and two high schools exist within five blocks of University Avenue in Provo. The elevated number of accidents occurring on this portion of University Avenue places the students of these schools at unwarranted increased risk.

- Several states have successfully restricted interstate traffic to improve safety and air quality and to reduce congestion. Furthermore, in several instances, states have successfully restricted non-destinational trucks.

- Some of these restrictions imposed by states have been challenged in court and have been found to be legal.

- **BECAUSE OF THE RISKS ASSOCIATED WITH ELEVATED TRUCK TRAFFIC ON US 189, NON-DESTINATIONAL TRUCKS SHOULD REMAIN ON THE INTERSTATE HIGHWAY SYSTEM UNLESS MAKING A LOCAL DELIVERY.**

- **RESTRICTING NON-DESTINATIONAL TRUCKS FROM US 189 IS NOT ONLY PRUDENT, IT IS HAS BEEN SHOWN TO BE LEGAL (SEE APPENDIX A).**

EVALUATION OF TRUCK TRAFFIC RESTRICTION

Route 17 - Between I-66 at Marshall and Route 29 at Warrenton

Route 15 - Between I-66 and Route 29 at Gainsville

Prepared by

Virginia Department of Highways and Transportation

March 1985

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Figure I. Truck Restriction on Routes 15 and 17, Fauquier and Prince William Counties

Table I. Accident Frequencies for Routes 15, 17, 29, and I-66 During the Restriction and Comparable Time Period Before the Restriction

Table II. Weighted Traffic Volumes for Routes 15, 17, 29 and I-66 by Vehicle Type for 1983 and 1984

Table III. Traffic Counts by Vehicle Type Prior to and During Restriction for Routes 15 and 17.

Appendix A. Resolution and Extension

EXECUTIVE SUMMARY OF FINDINGS FOR RESTRICTION OF TRACTOR-TRAILERS AND SINGLE UNIT TRUCKS FOR ROUTES 15 AND 17

- This report summarizes the impact of a restriction of tractor-trailers and single unit trucks on Route 15 from I-66 to Route 29 and on Route 17 from I-66 to Warrenton during November 19, 1984 to February 18, 1985.

- The effectiveness of this restriction has been assessed in terms of accident data on Routes 15, 17, 29 and I-66 before and during the restriction. See Figure 1 for a map of the restricted and alternate Routes under study.

- On Routes 15 and 17, there were no reported tractor-trailer nor single-unit truck accidents during the restriction. See Table I. The comparable time period the year before, November 19, 1983 to February 18, 1984, there were three tractor-trailer accidents on Route 17.

- On Route 29 during the restriction, there were three tractor-trailer accidents. See Table I. Two of the three accidents were reported as hit and run. The third was an overturn caused by a load shift. The comparable time period the year before, there were seven tractor-trailer accidents on Route 29.

- On I-66 during the restriction, there were five tractor-trailer accidents: one fatal, two injury, and two property damage accidents. See Table I. In three accidents including the fatal, icy road conditions prevailed.

- Traffic counts conducted before and during the restriction indicate adequate compliance. On Route 15, there was a 94 percent decrease in tractor-trailer traffic and a 69 percent decrease in single-unit truck traffic during the restriction. On Route 17, tractor-trailer traffic decreased by 95 percent and single-unit truck traffic decreased by 63 percent. See Table III.

- This report is offered as information for consideration by the Commission.

I. Historical Overview

This is the third in a series of reports addressing the concerns of local residents regarding the safe movement of traffic on Route 17 between Marshall and Warrenton.

The first report dated October, 1982, recommended that enforcement be increased and that Route 17 be given priority for an upgrade from two to four lanes.

The second study derived interim measures that could be implemented to reduce the increasing number and severity of accidents on this section of Route 17. From April 1, 1982, through October 4, 1984, this 10.35 mile section of Route 17 had a total of 75 accidents. Of the 75 reported accidents, 22 or 30 percent involved tractor-trailers, with 22 of these accidents accounting for 31 percent of the injuries and 80 percent of the fatalities. Yet tractor-trailers comprised only 9 percent of the average daily traffic. Accordingly, it was recommended that all through trucks, with a configuration of two axles, six tires or larger, be temporarily restricted from Route 17 between I-66 near Marshall and Route 29 in Warrenton and from Route 15 between I-66 and Route 29 until the widening of Route 17 is completed. See Appendix A for the Resolution and Extension.

This third report summarizes the impact of this restriction in terms of accidents on Routes 15, 17, 29 and I-66 before and during the restriction.

II. Description of the Roadway Under Study

Four roadways were evaluated for assessment of the impact of the restriction: Routes 15, 17, 29 and I-66.

The area under restriction was a 10.35 mile section of Route 17 in Fauquier County between the interchange of I-66 near Marshall to the intersection of Routes 29/15 in the Town of Warrenton. Also under restriction was a 3.13 mile section of Route 15 in Prince William County between the interchange of I-66 near Haymarket and to the intersection of Route 29.

Accident data and traffic volumes were obtained for Routes 15 and 17 as well as Routes 29 and I-66. The section of Route 29 between I-66 in Prince William County and Route 17 in the Town of Warrenton was one of the alternate routes assessed in this report. The section of I-66 between Route 17 in Fauquier County and Route 29 in Prince William County was the other alternate route under consideration in this report. See Figure 1. Also see a copy of the restriction and the time extension in Appendix A.

III. The Effect of the Restriction on Accident Frequencies for Routes 15, 17, 29 and I-66

Accident data was collected for study of the effect of truck restrictions on Route 17 from Route I-66 to Warrenton and on Route 15 from I-66 to Route 29. Accident data was also collected for alternative truck routes, Route 29 from Route 17 in Warrenton to I-66 between Routes 17 and 29. The period of restriction for this study was from November 19, 1984 to February 18, 1985. This was compared to the same period a year before, November 19, 1983 to February 18, 1984 when there was no restriction.

During the restriction of tractor-trailers and single unit trucks from Routes 15 and 17, the number of accidents on Routes 15, 17, 29, and I-66 has remained practically the same as that of the year before. See Table I.

On Route 17, six passenger vehicle accidents occurred with driver error reported in each instance. Reckless driving was charged for two of these accidents and failure to yield right-of-way for another. One driver struck a deer and no charge was issued. Turning from the wrong lane was reported for the fifth accident. Following too close and defective brakes were noted on the sixth report. The year before from November 19, 1983 to February 18, 1984, three tractor-trailer and three passenger vehicle accidents occurred.

There were no accidents on Route 15 before or during the restriction.

On Route 29, thirty accidents occurred during the restriction. Tractor-trailers were involved in three of these accidents. The 27 other cases were passenger vehicle accidents. At the same time the year before, 36 accidents occurred for the following vehicle types: 28 passenger vehicles, 1 single unit truck, 7 tractor-trailers. See Table I.

Of the three tractor-trailer accidents that occurred on Route 29 during the restriction, two were hit and run and the third was an overturn caused by a load shift. Of the 27 passenger vehicle accidents, driver error was the probable cause. There were three instances of reckless driving, five instances of following too close, one instance of improper passing, three instances of inattention, two instances of driving while intoxicated, four instances of failure to yield the right-of-way, one instance of an improper turn, and one instance of driver black-out. On three occasions, there was icy pavement and, on four occasions, a deer was struck.

On I-66, fourteen accidents occurred during the restriction. Five were tractor-trailer accidents and the other nine were passenger vehicle accidents. Five passenger vehicle accidents occurred during the same time period the year before.

In three of five tractor-trailer accidents on I-66 during the restriction, icy road conditions prevailed. In the other two tractor-trailer accidents, a deer and horse standing in the highway were struck. Icy road conditions prevailed for six of the nine passenger vehicle accidents on I-66 during the restriction. In the other three passenger vehicle accidents, two were improper lane changes and a horse was struck in the third.

See Table I for accident frequencies on Routes 15, 17, 29 and I-66. Evaluation of changes in accident frequencies and rates will be performed when data for a time period greater than 90 days is available to make more meaningful comparisons.

IV. Traffic Volumes on Routes 15, 17, 29 and I-66 in 1983 and 1984

A. On Route 15, there were 411 tractor-trailers in 1983 and 465 in 1984 for an increase of 13 percent. Route 15 had 1,819 passenger cars in 1983 and 2,274 in 1984 for an increase of 15 percent. Single unit trucks were recorded as 149 in 1983 and 173 in 1984 for an increase of 16 percent. In 1983 there were 12 buses and 21 in 1984 for an increase of 75 percent. The total volumes for 1983 were 2,390 and 2,933 in 1984 for an increase of 23 percent. See Table II.

B. On Route 17, tractor-trailers increased 5 percent from 661 in 1983 to 691 in 1984. Route 17 had 6,321 passenger vehicles in 1983 and 6,884 in 1984 for an increase of 9 percent. Single unit trucks increased 15 percent from 283 in 1983 to 326 in 1984. In 1983 there were 39 buses and 39 in 1984. The total volumes for 1983 were 7,304 and 7,939 in 1984 for an increase of 9 percent. See Table II.

C. On Route 29 there were 1,243 tractor-trailers in 1983 and 1,390 in 1984 for an increase of 12 percent. Passenger car volumes were 18,645 in 1983 and 19,025 in 1984 for an increase of 2 percent. Single unit trucks were recorded as 630 in 1983 and 619 in 1984 for a decrease of 2 percent. In 1983 there were 83 buses and 66 in 1984 for a decrease of 20 percent. The total volumes for 1983 were 20,601 and 21,100 in 1984 for an increase of 2 percent. See Table II.

D. On I-66 there were 977 tractor-trailers in 1983 and 1,122 in 1984 for an increase of 15 percent. Routes 66 had 7,748 passenger cars in 1983 and 8,961 in 1984 for an

increase of 16 percent. There were 271 single unit trucks in 1983 and 280 in 1984 for an increase of 3 percent. In 1983 there was a total of 9,029 vehicles and 10,393 in 1984 for an increase of 15 percent. See Table II.

This volume data reveal that the tractor-trailers and single unit trucks make adequate use of Route 29 and I-66 for alternate routing as planned and anticipated.

V. The 24-Hour Traffic Counts* Before and During the Restriction on Routes 15 and 17

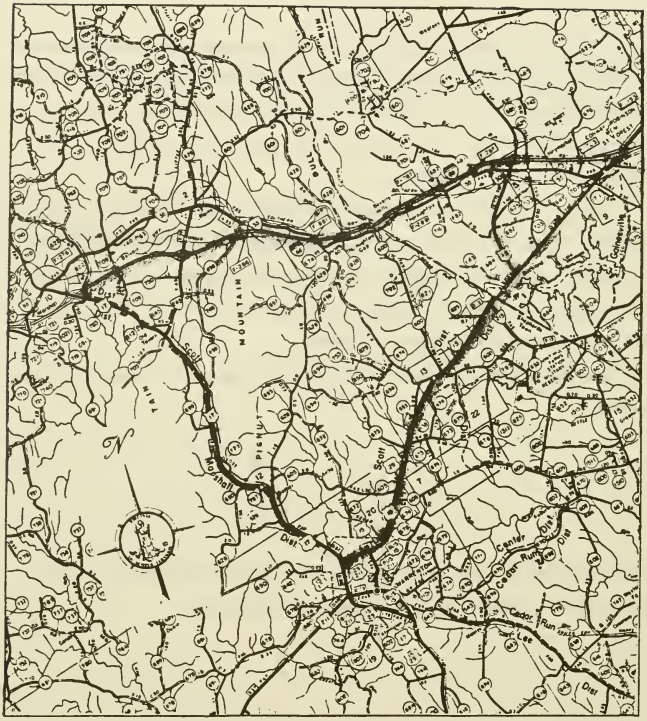
Tractor-trailer counts were 460 before and 29 during for a decrease of 94 percent. On Route 15 the truck count before restriction was 242 and 75 during restriction for a decrease of 69 percent. Counts for other vehicles were 3,139 before and 2,886 during for a decrease of 8 percent. The total counts were 3,841 before and 2,990 during for a decrease of 22 percent. See Table III.

Tractor-trailer counts were 648 before and 29 during restriction for a decrease of 95 percent. Along Route 17 the truck count was 449 before restriction and 165 during restriction for a decrease of 63 percent. Counts for other vehicles were 8,061 before and 7,269 during for a decrease of 10 percent. The total counts were 9,158 before and 7,463 during for a decrease of 19 percent. See Table III.

These data address the issue of compliance to the restriction and show that it was adequate.

*For the purposes of this report, traffic counts are based on one 24-hour period while traffic volumes are based on an average of several 24-hour periods.

FIGURE 1
TRUCK RESTRICTION ON ROUTES 15 AND 17
FAUQUIER AND PRINCE WILLIAM COUNTIES



RESTRICTED ROUTES (15 & 17)
ALTERNATE ROUTES (29 & I-66)

TABLE I

ACCIDENT FREQUENCIES(1) FOR ROUTES 15, 17, 29 AND I-66 DURING THE RESTRICTION AND COMPARABLE TIME PERIOD BEFORE THE RESTRICTION

(ROUTE 15 FROM I-66 TO ROUTE 29, 3.13 MILES)

TYPE OF VEHICLE	AT/MR(2)	NO. FATAL ACCIDENTS	NO. FATALITIES	NO. INJURY ACCIDENTS	NO. INJURIES	NO. PDO(3) ACCIDENTS	TOTAL NO. ACCIDENTS
11-19-83 TO 2-18-84							
PASSENGER VEHICLES	1019	0	0	0	0	0	0
TRUCKS	149	0	0	0	0	0	0
TRACTOR TRAILERS	411	0	0	0	0	0	0
BUSES	12	0	0	0	0	0	0
TOTAL VEHICLES	2391	0	0	0	0	0	0
11-19-84 TO 2-18-85							
PASSENGER VEHICLES	2274	0	0	0	0	0	0
TRUCKS	173	0	0	0	0	0	0
TRACTOR TRAILERS	465	0	0	0	0	0	0
BUSES	21	0	0	0	0	0	0
TOTAL VEHICLES	2933	0	0	0	0	0	0

(1)ACCIDENTS ARE CLASSIFIED BY VEHICLE REPORTED AT FAULT AND HIGHEST DEGREE OF SEVERITY (FATALITY, INJURY OR PROPERTY DAMAGE). THAT IS, IF THREE DIFFERENT CATEGORIES OF VEHICLE ARE INVOLVED IN ONE ACCIDENT, IT WOULD ONLY COUNT AS ONE ACCIDENT AND BE PLACED UNDER THE TYPE OF VEHICLE REPORTED AT FAULT.

(2)AT/MR = AVERAGE TRAFFIC PER MILE OF ROAD

(3)PDO = PROPERTY DAMAGE ONLY

TABLE 1 CON'T

ACCIDENT FREQUENCIES(1) FOR ROUTES 15, 17, 29 AND I-66 DURING THE RESTRICTION AND COMPARABLE TIME PERIOD BEFORE THE RESTRICTION

(ROUTE 17 FROM I-66 TO WARRENTON, 9.72 MILES)

TYPE OF VEHICLE	AT/NR(2)	NO. FATAL ACCIDENTS	NO. FATALITIES	NO. INJURY ACCIDENTS	NO. INJURIES	NO. PDO(3) ACCIDENTS	TOTAL NO. ACCIDENTS
11-19-83 TO 2-10-84							
PASSENGER VEHICLES	6321	0	0	3	3	0	3
TRUCKS	283	0	0	0	0	0	0
TRACTOR TRAILERS	661	0	0	1	1	2	3
BUSES	39	0	0	0	0	0	0
TOTAL	7304	0	0	4	4	2	6
11-19-84 TO 2-10-85							
PASSENGER VEHICLES	6884	0	0	4	6	2	6
TRUCKS	326	0	0	0	0	0	0
TRACTOR TRAILERS	691	0	0	0	0	0	0
BUSES	39	0	0	0	0	0	0
TOTAL	7940	0	0	4	6	2	6

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(2) AT/NR = AVERAGE TRAFFIC PER MILE OF ROAD

(3) PDO = PROPERTY DAMAGE ONLY

DATE REVISED: 7-11-85

TABLE 1 CON'T

ACCIDENT FREQUENCIES(1) FOR ROUTES 15, 17, 29 AND I-66 DURING THE RESTRICTION AND COMPARABLE TIME PERIOD BEFORE THE RESTRICTION

(ROUTE 29 FROM ROUTE 17 WARRENTON TO I-66, 12.78 MILES)

TYPE OF VEHICLE	AT/HR(2)	NO. FATAL ACCIDENTS	NO. FATALITIES	NO. INJURY ACCIDENTS	NO. INJURIES	NO. PDO(3) ACCIDENTS	TOTAL NO. ACCIDENTS
11-19-03 TO 2-18-04							
PASSENGER VEHICLES	18645	0	0	11	18	17	28
TRUCKS	630	0	0	0	0	1	1
TRACTOR TRAILERS	1243	0	0	3	5	4	7
BUSES	83	0	0	0	0	0	0
TOTAL	20601	0	0	14	23	22	36
11-19-04 TO 2-18-05							
PASSENGER VEHICLES	19025	0	0	12	20	15	27
TRUCKS	619	0	0	0	0	0	0
TRACTOR TRAILERS	1390	0	0	3	3	0	3
BUSES	66	0	0	0	0	0	0
TOTAL	21100	0	0	15	23	15	30

(1)ACCIDENTS ARE CLASSIFIED BY VEHICLE REPORTED AT FAULT AND HIGHEST DEGREE OF SEVERITY (FATALITY, INJURY OR PROPERTY DAMAGE). THAT IS, IF THREE DIFFERENT CATEGORIES OF VEHICLE ARE INVOLVED IN ONE ACCIDENT, IT WOULD ONLY COUNT AS ONE ACCIDENT AND BE PLACED UNDER THE TYPE OF VEHICLE REPORTED AT FAULT.

(2)AT/HR = AVERAGE TRAFFIC PER MILE OF ROAD

(3)PDO = PROPERTY DAMAGE ONLY

DATE REVISED: 3-11-05

TABLE 1 CON'T

ACCIDENT FREQUENCIES(1) FOR ROUTES 15, 17, 29 AND I-66 DURING THE RESTRICTION AND COMPARABLE TIME PERIOD BEFORE THE RESTRICTION

(ROUTE I-66 FROM ROUTE 17 TO ROUTE 29, 14.97 MILES)

TYPE OF VEHICLE	AT/MR(2)	NO. FATAL ACCIDENTS	NO. FATALITIES	NO. INJURY ACCIDENTS	NO. INJURIES	NO. PDO(3) ACCIDENTS	TOTAL NO. ACCIDENTS
11-19-83 TO 2-18-84							
PASSENGER VEHICLES	7748	0	0	1	3	4	5
TRUCKS	271	0	0	0	0	0	0
TRACTOR TRAILERS	977	0	0	0	0	0	0
BUSES	33	0	0	0	0	0	0
TOTAL	9029	0	0	1	3	4	5
11-19-84 TO 2-18-85							
PASSENGER VEHICLES	8961	1	2	4	7	4	9
TRUCKS	280	0	0	0	0	0	0
TRACTOR TRAILERS	1121	1	1	2	4	2	5
BUSES	31	0	0	0	0	0	0
TOTAL	10393	2	3	6	11	6	14

(1)ACCIDENTS ARE CLASSIFIED BY VEHICLE REPORTED AT FAULT AND HIGHEST DEGREE OF SEVERITY (FATALITY, INJURY OR PROPERTY DAMAGE). THAT IS, IF THREE DIFFERENT CATEGORIES OF VEHICLE ARE INVOLVED IN ONE ACCIDENT, IT WOULD ONLY COUNT AS ONE ACCIDENT AND BE PLACED UNDER THE TYPE OF VEHICLE REPORTED AT FAULT.

(2)AT/MR = AVERAGE TRAFFIC PER MILE OF ROAD

(3)PDO = PROPERTY DAMAGE ONLY

TABLE 11

AT/MR(1) FOR ROUTES 15, 17, 29 & I-66 BY VEHICLE TYPE FOR 1983 AND 1984

(ROUTE 15)

YEAR 1983

ROUTE	FROM	TO	LENGTH	VPC(2)	OST PC(3)	2AE 4T(4)	TOT PC(5)	SINGLE UNIT TRUCKS 2AE 6T	3AE 6-10T	TOT SUT	TR. TLRS.(6)	BUSES	TOT. VEH.
15	RTE 66 N. HWY.	NCL HWY.	0.17	2700	370	890	3960	240	50	290	600	45	4895
15	NCL HWY.	RTE 29	2.83	1050	230	610	1690	110	30	140	400	10	2240
TOTALS			3.00	1144	238	437	1819	117	31	149	411	12	2390

YEAR 1984

ROUTE	FROM	TO	LENGTH	VPC(2)	OST PC(3)	2AE 4T(4)	TOT PC(5)	SINGLE UNIT TRUCKS 2AE 6T	3AE 6-10T	TOT SUT	TR. TLRS.(6)	BUSES	TOT. VEH.
15	RTE 66 N. HWY.	NCL HWY.	0.17	2500	290	1050	3840	190	35	225	540	45	4650
15	NCL HWY.	RTE 29	2.83	1330	230	600	2180	150	20	170	460	20	2830
TOTALS			3.00	1415	233	626	2274	152	21	173	465	21	2933

(1)AT/MR = AVERAGE TRAFFIC PER MILE OF ROAD

(2)VPC = VIRGINIA PASSENGER CARS

(3)OST PC = OUT OF STATE PASSENGER CARS

(4)2AE 4T = PANEL AND PICKUP

(5)TOT = TOTAL

(6)TR. TLRS. = TRACTOR-TRAILERS

DATE REVISED: 3-11-85

TABLE 11 CON'T

AT/MR(1) FOR ROUTES 15, 17, 29 & 1-66 BY VEHICLE TYPE FOR 1983 AND 1984

(ROUTE 17)

YEAR 1983

ROUTE	FROM	TO	LENGTH	VPC(2)	OST PC(3)	2AI 4T(3)	TOT PC(5)	SINGLE UNIT TRUCKS 2AI &T	3AI &-10T	TOT SUT	TR. TLRS.(6)	BUSES	TOT. VEH.
17	RTE 1-66	RTE 245	2.55	3800	1600	840	5440	220	30	250	670	35	6395
17	RTE 245	RTE 628	5.33	3650	1600	1200	6450	250	40	290	660	40	7440
17	RTE 628	NCL WARRENTON	1.68	4200	1600	1450	7250	260	50	310	650	40	8250
TOTALS			9.56	3573	1600	1148	6321	244	39	283	661	39	7304

YEAR 1984

ROUTE	FROM	TO	LENGTH	VPC(2)	OST PC(3)	2AI 4T(4)	TOT PC(5)	SINGLE UNIT TRUCKS 2AI &T	3AI &-10T	TOT SUT	TR. TLRS.(6)	BUSES	TOT. VEH.
17	RTE 1-66	RTE 245	2.55	3750	1400	1150	6300	200	50	250	700	35	7285
17	RTE 245	RTE 628	5.33	4100	1450	1450	7000	270	65	335	690	40	8065
17	RTE 628	NCL WARRENTON	1.68	4300	1450	1650	7400	330	80	410	680	40	8530
TOTALS			9.56	4042	1437	1405	6884	262	64	326	691	39	7919

(1)AT/MR = AVERAGE TRAFFIC PER MILE OF ROAD

(2)VPC = VIRGINIA PASSENGER CARS

(3)OST PC = OUT OF STATE PASSENGER CARS

(4)2AI 4T = PANEL AND PICKUP

(5)TOT = TOTAL

(6)TR. TLRS. = TRACTOR-TRAILERS

DATE REVISED: 3-11-85

TABLE II CON'T

AT/MR(1) FOR ROUTES 15, 17, 29 & I-66 BY VEHICLE TYPE FOR 1983 AND 1984

(ROUTE 29)

YEAR 1983

ROUTE	FROM	TO	LENGTH	VPC(2)	OST PC(3)	2AI 4T(4)	TOT PC(5)	SINGLE UNIT TRUCKS 2AI &T	3AI &-10T	TOT SUT	TR. TLRS.(6)	BUSES	TOT. VEH.
29	NCL WARRENTON	RTE 215	6.42	14700	1700	3800	20200	590	95	685	1500	100	22485
29	RTE 215	RTE 15	0.96	12400	1600	3050	17050	490	95	585	1250	65	18950
29	RTE 15	RTE 55	3.30	11800	1400	2700	15900	420	100	520	800	55	17275
29	RTE 55	RTE 66	0.63	14400	1650	3350	19600	570	150	720	930	90	21340
TOTALS			11.31	13653	1601	3390	18645	531	100	630	1243	83	20601

YEAR 1984

ROUTE	FROM	TO	LENGTH	VPC(2)	OST PC(3)	2AI 4T(4)	TOT PC(5)	SINGLE UNIT TRUCKS 2AI &T	3AI &-10T	TOT SUT	TR. TLRS.(6)	BUSES	TOT. VEH.
29	NCL WARRENTON	RTE 215	6.42	14300	1900	3700	19900	560	130	690	1650	70	22310
29	RTE 215	RTE 15	0.96	12800	1650	3700	18150	500	100	600	1450	60	20260
29	RTE 15	RTE 55	3.30	12800	1200	3450	17450	420	60	480	950	55	18935
29	RTE 55	RTE 66	0.63	14500	1250	3950	19700	550	110	660	950	85	21395
TOTALS			11.31	13746	1638	3641	19025	514	106	619	1390	66	21100

(1)AT/MR = AVERAGE TRAFFIC PER MILE OF ROAD

(2)VPC = VIRGINIA PASSENGER CARS

(3)OST PC = OUT OF STATE PASSENGER CARS

(4)2AI 4T = PANEL AND PICKUP

(5)TOT = TOTAL

(6)TR. TLRS. = TRACTOR-TRAILERS

*E REVISED: 3-11-85

TABLE 11 CON'T

AT/MAIL) FOR ROUTES 15, 17, 29 & 1-66 BY VEHICLE TYPE FOR 1983 AND 1984

(ROUTE 1-66)

YEAR 1983

ROUTE	FROM	TO	LENGTH	VPC(2)	OST PC(3)	2AT 4T(4)	TOT PC(5)	SINGLE UNIT TRUCKS 2AX 6T	3AX 6-10T	TOT SUT	TR. TLRS.(6)	BUSES	TOT. VEH.
66	RTE 17	RTE 245	3.05	4300	1350	1050	6700	260	50	310	850	45	7905
66	RTE 245	RTE 15	8.72	4900	1650	1300	7850	230	35	265	1050	30	9195
66	RTE 15	RTE 29	2.55	5700	1550	1400	8650	200	45	245	880	30	9805
TOTALS			14.32	4915	1568	1265	7748	231	40	271	927	33	9029

YEAR 1984

ROUTE	FROM	TO	LENGTH	VPC(2)	OST PC(3)	2AT 4T(4)	TOT PC(5)	SINGLE UNIT TRUCKS 2AX 6T	3AX 6-10T	TOT SUT	TR. TLRS.(6)	BUSES	TOT. VEH.
66	RTE 17	RTE 245	3.05	4600	1500	1250	7350	200	90	290	1100	35	8775
66	RTE 245	RTE 15	8.72	5600	1750	1900	9250	230	40	270	1150	30	10700
66	RTE 15	RTE 29	2.55	6400	1500	2000	9900	260	40	300	1050	30	11280
TOTALS			14.32	5529	1652	1779	8961	229	51	280	1122	31	10393

(1)AT/MR = AVERAGE TRAFFIC PER MILE OF ROAD

(2)VPC = VIRGINIA PASSENGER CARS

(3)OST PC = OUT OF STATE PASSENGER CARS

(4)2AT 4T = PANEL AND PICKUP

(5)TOT = TOTAL

(6)TR. TLRS. = TRACTOR-TRAILERS

DATE REVISED: 3-11-85

TABLE III

TRAFFIC COUNTS BY VEHICLE TYPE PRIOR TO AND DURING RESTRICTION FOR ROUTES 15 AND 17

A. Route 15

Before - 11/16-17/84			During - 12/14-15/84		
Trucks	T.T.	Other	Trucks	T.T.	Other
242	460	3,139	75	29	2,886

B. Route 17

Before - 11/16-17/84			During - 12/14-15/84		
Trucks	T.T.	Other	Trucks	T.T.	Other
449	648	8,061	165	29	7,269

APPENDIX A.

RESOLUTION

CLOSURE OF SECTIONS OF ROUTES 17 and 15 TO CERTAIN TYPES OF TRAFFIC

WHEREAS, under Section 46.1-345 of the Code of Virginia (1950), as amended, the State Highway and Transportation Commissioner may prescribe the weight, width, height, length or speed of any vehicle or combination of vehicles passing over any highway or section of highway constituting a part of the State Highway System whenever an engineering study disclosed that it would promote the safety of travel; and

WHEREAS, under Section 33.1-193 of the Code of Virginia, the State Highway and Transportation Commissioner may for the safety of the traveling public, close or cause to be closed, the whole, or any portion of any road or highway coming under his jurisdiction, deemed necessary to be excluded from public travel and may exclude all or any class of traffic from such closed portion; and

WHEREAS, under § 33.1-193 of the Code of Virginia, the State Highway and Transportation Commissioner may post or cause to be posted suitable conspicuous notices to the effect that the road or highway or portion thereof, is closed; and

WHEREAS, on the recommendation of the Deputy Commissioner, the Chief Engineer, the Assistant Chief Engineer, the State Traffic and Safety Engineer, and the Culpeper District Engineer, that as a result of the Department of Highways and Transportation's traffic and engineering studies and due to twenty-two (22) tractor-trailer truck accidents involving four (4) fatalities and sixteen (16) injuries that have occurred on Route 17 between the interchange of Interstate 66 near Marshall and the intersection of Route 29/15 in the City of Warrenton since April 1, 1982; and

APPENDIX A. CON'T

RESOLUTION

WHEREAS, because of the serious problem of tractor-trailer truck involvement in accidents on this highway which poses an ongoing problem given the ten foot (10') travel lanes and horizontal alignment of this rural two lane highway; and

WHEREAS, the occurrence of accidents has dramatically increased since the initial safety study was conducted in April 1982; and

WHEREAS, due to a similar problem on Route 15 from the interchange of Interstate 66 near Haymarket to the intersection of Route 29 that will arise because of the steps taken herein in reference to Route 17; and

WHEREAS, the portions of Route 17 and Route 15 described above are part of the State Highway System and under the jurisdiction of the State Highway and Transportation Commissioner;

NOW THEREFORE BE IT RESOLVED that pursuant to §§ 33.1-193 and 46.1-345 of the Code of Virginia, in order to protect the lives of the traveling public including the drivers of tractor-trailer trucks and all other users of these routes and in order to promote safety of travel, a 10.35 mile section of Route 17 in Fauquier County, Virginia, from the interchange of Interstate 66 near Marshall to the intersection of Route 29/15 in the City of Warrenton and a 3.13 mile section of Route 15 in Prince William County, Virginia, from the intersection of Interstate 66 near Haymarket to the intersection of Route 29 are hereby temporarily closed to all vehicles which have two or more axles and six or more tires for a period of ninety days commencing November 19, 1984 and ending February 17, 1985, unless hereafter modified, extended, enlarged or withdrawn, based upon further study by the

RESOLUTION

Department of Highways and Transportation and public comment received,

AND BE IT FURTHER RESOLVED that such closure shall apply only to through traffic and not to traffic making local pickups or deliveries and shall not apply to recreational vehicles,

AND BE IT FINALLY RESOLVED that proper signs shall be posted by the Department of Highways and Transportation notifying the traveling public of such closure and that other steps shall be taken to publicize this closure.

Given under my hand this 15 day of November 1984.

Harold C. King
Commissioner

EXTENSION

Pursuant to my order of November 15, 1984, prohibiting through truck traffic on Routes 17 and 15 in Fauquier and Prince William Counties, and the provision therein whereby the prohibition could be modified or amended, the operations of such order are hereby extended for an additional forty-five (45) days until March 21, 1985, for those reasons outlined in my letter of this date to members of the State Highway and Transportation Commission.

Harold C. King, Commissioner

January 15, 1985

EXTENSION

[illegible boards and officers]

COMMONWEALTH of VIRGINIA

DEPARTMENT OF HIGHWAYS & TRANSPORTATION
1221 EAST BROAD STREET
RICHMOND, 23218

[illegible officers]

January 15, 1985

Memorandum

To: The Members of the State Highway and Transportation Commission

Subject: Closure of Route 17 between I-66 and Warrenton to Truck Traffic

In my memorandum of November 15, 1984 and in the Commission meeting on the same day, I advised that a temporary restriction would be instituted to ban through trucks for a period of ninety (90) days on a 10.35 mile section of Route 17 in Fauquier County to promote safety. Its parameters extend from the interchange of I-66 near Marshall to the intersection of Route 29/15 in the City of Warrenton. Through trucks were also barred on a 3.13 mile section of Route 15 in Prince William County from the intersection of I-66 near Haymarket to the intersection of Route 29. This restriction will terminate on February 17, 1985, prior to the Commission meeting.

(? Town

The Department is currently evaluating the impact of this restriction. To enable us to maximize the time frame for consideration of any impacts and to bring this matter before the Commission at the March 21, 1985 meeting, I am extending the temporary restriction for a period of 45 days.

Harold C. King

Harold C. King, Commissioner

RWA:gyj
cc: Colonel R. L. Suthard
bcc: Mr. D. K. Mabry
Mr. J. M. Wray, Jr.
Mr. J. T. Warren
Mr. H. W. Worrall
Mr. J. S. Hodge
Mr. J. G. Ripley
Ms. Sally Cooper
Mr. John J. Beall
Mr. A. L. Thomas, Jr.

IMPACT OF THROUGH TRACTOR-TRAILER RESTRICTION

FROM ROUTE 17 IN FAUQUIER COUNTY AND

ROUTE 15 IN PRINCE WILLIAM COUNTY

ON ALTERNATE ROUTES 29, 211, 234, 245, 522, AND I-66

PREPARED BY

TRAFFIC ENGINEERING DIVISION

VIRGINIA DEPARTMENT OF TRANSPORTATION

OCTOBER, 1988

ABSTRACT

The study of impacts on the alternate routes of 29, 211, 234, 245, 522 and I-66 affected by the tractor-trailer restriction imposed on sections of Route 15 in Prince William County and Route 17 in Fauquier County indicated there were increases in traffic and accidents on most routes.

All vehicles and tractor-trailer volumes increased on each of the alternate routes with the exception of tractor-trailers on Route 245.

There were increases in the total accidents except on Routes 211 and 245. Tractor-trailer accidents increased on all but Route 245.

Accident rates for total accidents decreased on all but Routes 29 and 234. The accident rate for tractor-trailers decreased on all but Routes 211 and 522.

Using the premise that accidents will increase with increases in traffic volumes and that only one route showed an accident rate percent increase more than the percent of traffic increase, the through truck restriction placed on Routes 15 and 17 has had no significant adverse effect on the alternate routes of travel.

A separate study indicated that from a safety perspective, the lifting of the restriction on Route 17 in advance of project completion could place the Department in a position of responsible liability and also bring about a resurgence of public concern should an accident occur which was caused by the same problem the restriction was established to eliminate.

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Through Trucks
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I. Historical Overview

This is the fourth in a series of reports addressing the concerns of local residents regarding the safe movement of traffic on Route 17 between Marshall and Warrenton.

The first report dated October, 1982 recommended that enforcement be increased and that Route 17 be given priority for an upgrade from two to four lanes.

The second study derived interim measures that could be implemented to reduce the increasing number and severity of accidents on this section of Route 17. From April 1, 1982, through October 4, 1984, this 10.35 mile section of Route 17 had a total of 75 accidents. Of the 75 reported accidents, 22 or 30 percent involved tractor-trailers, with 22 of these accidents accounting for 31 percent of the injuries and 80 percent of the fatalities. Yet tractor-trailers comprised only 9 percent of the average daily traffic. Accordingly, it was recommended that all through trucks, with a configuration of two axles, six tires or larger, be restricted from Route 17 between I-66 near Marshall and Route 29 in Warrenton and from Route 15 between I-66 and Route 29 until the widening of Route 17 was completed. See Appendix A for the Resolution and Extension.

The third report summarized the impact of the restriction in terms of accidents on Routes 15, 17, 29 and I-66 before and during the restriction.

This fourth report summarizes the impact of this restriction in terms of accidents on Routes 29, 211, 234, 245, 522, and I-66 for a two year period before the restriction and a two year period after the implementation on March 21, 1985. See Appendix B for the Resolution.

II. Description of the Roadways Under Study

The area under restriction is a 10.35 mile section of Route 17 in Fauquier

County between the interchange of I-66 near Marshall to the intersection of Business Route 29 in the Town of Warrenton. Also under restriction is a 3.13 mile section of Route 15 in Prince William County from the interchange of I-66 near Haymarket to the intersection of Route 29.

Because of the displacement of tractor-trailers from these two routes, six other roadways were evaluated for any adverse effect the through truck restriction may have caused.

Accident data and traffic volumes for a two year period before and after the restriction were analyzed for those sections of Routes 29, 211, 234, 245, 522 and I-66 which could be impacted. The before period ran from March 21, 1983 to March 20, 1985 and the after from March 21, 1985 to March 20, 1987.

III. Accidents

Accident data for a two year period before and a two year period after the truck restriction were analyzed for Routes 15 and 17. (See Table I.) The results are discussed by route.

Route 211 from the WCL of Warrenton to the intersection of Route 522 at Massies Corner experienced sixty-one accidents during the before period and also during the after period. The accident rate for all accidents showed a decrease of 13 (12.9) percent. The accident rate for tractor-trailers increased 100 percent based on one accident compared with none in the before period. The accident was an angle collision.

Route 245 from the interchange of I-66 to the intersection of Route 17 had four accidents during the before period and also during the after period. The accident rate for all accidents decreased (6.2) percent. There were no tractor-trailer accidents reported during either the before or after periods.

Route 522 from the interchange of I-66 to the intersection of Route 29 experienced a total of 133 accidents during the before period and 138 during

the after period. The accident rate for all accidents showed a decrease of 16 (16.0) percent. The tractor-trailer accident rate increased 28 (27.5) percent. Among the eight accidents involving tractor-trailers during the after period, there were three angle accidents, two run-off-the-road, and one each of sideswipe in the same direction and opposite direction and collision with animal reported as accident types.

Route 234 from the interchange of I-95 to the interchange of I-66 experienced a total of 736 accidents during the before period and 871 during the after period. The accident rate for all accidents increased 4 (4.1) percent. The tractor-trailer accident rate decreased 16 (15.5) percent. Of the 28 accidents involving tractor-trailers, rear end with eleven and angles with five were the most predominant types reported. In addition there were three each of sideswipe same direction and sideswipe opposite direction, five run-off-the-road or overturned vehicle and one head-on collision reported.

Interstate Route 66 from the interchange with Route 17 at Marshall to the interchange with Route 29 at Gainesville experienced a total of twenty accidents during the before period and twenty-four during the after period. The accident rate for all accidents showed a decrease of 14 (14.0) percent. The tractor-trailer accident rate had a decrease of 28 (28.2) percent. Among the eleven accidents involving tractor-trailers there were four sideswipe same direction, three run-off-the-road and one each of rear end and miscellaneous reported. The remaining two accidents were collisions with deer.

Route 29 from the NCL of Warrenton to the interchange of I-66 experienced a total of 104 accidents during the before period and 146 during the after period. The accident rate for all accidents showed an increase of 18 (18.0) percent. The tractor-trailer accident rate decreased 9 (8.8) percent. Among the thirty-three accidents involving tractor-trailers, there were twelve

sideswipe same direction, nine rear end, four angle, four run-off-the-road or overturned vehicle, and one each of backing, collision with animals and deer reported. One accident listed a tractor-trailer being the cause of running another vehicle off the road.

IV. Traffic

An analysis of traffic based on average 24-hour vehicles per mile of road for those sections of routes under study showed increases in all vehicles that ranged from 7 (6.7) percent to 40 (39.6) percent from the before study period. Tractor-trailer increases ranged from zero percent to 109 (109.1) percent. (See Table II.)

On Route 211 the average daily traffic per mile of road in the before period was 5,523 vehicles and 6,343 vehicles during the after period, an increase of 15 (14.9) percent. Tractor-trailers during the same periods increased 79 (79.4) percent with 63 and 113 respectively in the before and after periods.

On Route 245 the average daily traffic per mile of road in the before period was 1,339 vehicles and 1,428 vehicles during the after period, an increase of 7 (6.7) percent. There was no increase in tractor-trailers with each period having only six.

On Route 522 the average daily traffic per mile of road in the before period was 2,913 vehicles and 3,598 vehicles during the after period, an increase of 24 (23.5) percent. Tractor-trailers during the same periods increased 109 (109.1) percent with 55 and 115, respectively, in the before and after periods.

On Route 234 the average daily traffic per mile of road in the before period was 12,469 vehicles and 14,180 vehicles during the after period, an increase of 14 (13.7) percent. Tractor-trailers during the same periods

increased 66 (65.6) percent with 154 and 255, respectively, in the before and after periods.

On Interstate Route 66 the average daily traffic per mile of road in the before period was 10,234 vehicles and 14,283 vehicles during the after period, an increase of 40 (39.6) percent. Tractor-trailers during the same periods increased 70 (70.2) percent with 1,149 and 1,956, respectively, in the before and after periods.

On Route 29 the average daily traffic per mile of road in the before period was 21,249 vehicles and 25,288 during the after period, an increase of 19 (19.0) percent. Tractor-trailers during the same periods increased 51 (50.8) percent with 1,403 and 2,115, respectively, in the before and after periods.

V. Summary and Conclusions

Each of the six routes impacted by the through tractor-trailer restriction on sections of Routes 15 and 17 showed increases in traffic both in all vehicles and tractor-trailers. The only exception was Route 245 which had no increase in tractor trailers.

There were increases in all accidents except on Routes 211 and 245 and in tractor-trailer accidents on Route 245. Accident frequencies in many cases can be misleading, especially when traffic volumes change. To make a viable comparison between the relationship of traffic and accidents, it was necessary to use accident rates which adjust for volume change.

Accidents rates for all accidents showed decreases on all but Routes 29 and 234. Neither increase, however, was more than the traffic percent increase on the same route.

The accident rates for tractor-trailers increased on Routes 211 and 522, but only the percent increase of Route 211 was higher than the traffic percent

increase. It should be noted this rate was based on only one accident during the after period compared with none in the before period.

It would be difficult to ascertain the exact number of tractor-trailers that were displaced to each of the six routes and how much of the increase was due to normal growth and increases on the road system. However, using the premise that accidents will increase with traffic volumes and that only one route showed an accident rate more than the traffic increase, the through truck restriction placed on Routes 15 and 17 has had no significant adverse effect on the six alternate routes of travel.

Another study completed in June, 1988 discussed the feasibility of removing the through-truck restriction prior to completing all construction. It was recommended at the time this not be done. Basis for the decision included the possibility of increased conflicts with construction personnel and equipment, a resurgence of public concern over why the restriction was initially enacted, and the Department would be placed in a position of increased responsible liability.

TABLE I
COMPARISON OF ACCIDENT DATA
BEFORE (MARCH 21, 1983 TO MARCH 20, 1985) AFTER (MARCH 21, 1985 TO MARCH 20, 1987)

		All Accidents	Accident Rate	Tractor-Trailer Accidents	Tractor-Trailer Accident Rate	Percent Tractor-Trailer Accidents of Total
Route 211	Before	61	80.31	0	0.0	0.0
	After	61	69.92	1	64.35	1.6
	Accident Rate Percent Change		-12.9		+100.0	
Route 245	Before	4	195.80	0	0.0	0.0
	After	4	183.60	0	0.0	0.0
	Accident Rate Percent Change		-6.2		0.0	
Route 522	Before	133	151.73	3	181.27	2.3
	After	138	127.46	8	231.19	5.8
	Accident Rate Percent Change		-16.0		+27.5	
Route 234	Before	736	455.80	20	1002.84	2.7
	After	871	474.31	28	847.89	3.2
	Accident Rate Percent Change		+4.1		-15.5	
Route 66	Before	20	18.66	9	74.77	45.0
	After	24	16.04	11	53.68	45.8
	Accident Rate Percent Change		-14.0		-28.2	
Route 29	Before	104	60.84	24	212.64	23.1
	After	146	71.77	33	193.95	22.6
	Accident Rate Percent Change		+18.0		-8.8	

Table II
Average Daily Vehicles Per Mile of Road
Before (March 21, 1983 to March 20, 1985) **After** (March 21, 1985 to March 20, 1987)

		All Vehicles	Tractor-Trailers	Percent Tractor-Trailer of Total
Route 211	Before	5523	63	1.1
	After	6343	113	1.8
	Percent Increase	14.9	79.4	
Route 245	Before	1339	6	0.5
	After	1428	6	0.4
	Percent Increase	6.7	0.0	
Route 522	Before	2913	55	1.9
	After	3598	115	3.2
	Percent Increase	23.5	109.1	
Route 234	Before	12,469	154	1.2
	After	14,180	255	1.8
	Percent Increase	13.7	65.6	
Route 66	Before	10,234	1149	11.2
	After	14,283	1956	13.7
	Percent Increase	39.6	70.2	
Route 29	Before	21,249	1403	6.6
	After	25,288	2115	8.4
	Percent Increase	19.0	50.8	

FIGURE I.

Location of Restricted and Alternate Routes

APPENDIX A.

RESOLUTION

CLOSURE OF SECTIONS OF ROUTES 17 and 15 TO CERTAIN TYPES OF TRAFFIC

WHEREAS, under Section 46.1-345 of the Code of Virginia (1950), as amended, the State Highway and Transportation Commissioner may prescribe the weight, width, height, length or speed of any vehicle or combination of vehicles passing over any highway or section of highway constituting a part of the State Highway System whenever an engineering study disclosed that it would promote the safety of travel; and

WHEREAS, under Section 33.1-193 of the Code of Virginia, the State Highway and Transportation Commissioner may for the safety of the traveling public, close or cause to be closed, the whole, or any portion of any road or highway coming under his jurisdiction, deemed necessary to be excluded from public travel and may exclude all or any class of traffic from such closed portion; and

WHEREAS, under § 33.1-193 of the Code of Virginia, the State Highway and Transportation Commissioner may post or cause to be posted suitable conspicuous notices to the effect that the road or highway or portion thereof, is closed; and

WHEREAS, on the recommendation of the Deputy Commissioner, the Chief Engineer, the Assistant Chief Engineer, the State Traffic and Safety Engineer, and the Culpeper District Engineer, that as a result of the Department of Highways and Transportation's traffic and engineering studies and due to twenty-two (22) tractor-trailer truck accidents involving four (4) fatalities and sixteen (16) injuries that have occurred on Route 17 between the interchange of Interstate 66 near Marshall and the intersection of Route 29/15 in the City of Warrenton since April 1, 1982; and

APPENDIX A. CON'T

RESOLUTION

WHEREAS, because of the serious problem of tractor-trailer truck involvement in accidents on this highway which poses an ongoing problem given the ten foot (10') travel lanes and horizontal alignment of this rural two lane highway; and

WHEREAS, the occurrence of accidents has dramatically increased since the initial safety study was conducted in April 1982; and

WHEREAS, due to a similar problem on Route 15 from the interchange of Interstate 66 near Haymarket to the intersection of Route 29 that will arise because of the steps taken herein in reference to Route 17; and

WHEREAS, the portions of Route 17 and Route 15 described above are part of the State Highway System and under the jurisdiction of the State Highway and Transportation Commissioner;

NOW THEREFORE BE IT RESOLVED that pursuant to SS 33.1-193 and 46.1-345 of the Code of Virginia, in order to protect the lives of the traveling public including the drivers of tractor-trailer trucks and all other users of these routes and in order to promote safety of travel, a 10.35 mile section of Route 17 in Fauquier County, Virginia, from the interchange of Interstate 66 near Marshall to the intersection of Route 29/15 in the City of Warrenton and a 3.13 mile section of Route 15 in Prince William County, Virginia, from the intersection of Interstate 66 near Haymarket to the intersection of Route 29 are hereby temporarily closed to all vehicles which have two or more axles and six or more tires for a period of ninety days commencing November 19, 1984 and ending February 17, 1985, unless hereafter modified, extended, enlarged or withdrawn, based upon further study by the

APPENDIX A. CON'T

RESOLUTION

Department of Highways and Transportation and public comment received,

AND BE IT FURTHER RESOLVED that such closure shall apply only to through traffic and not to traffic making local pickups or deliveries and shall not apply to recreational vehicles,

AND BE IT FINALLY RESOLVED that proper signs shall be posted by the Department of Highways and Transportation notifying the traveling public of such closure and that other steps shall be taken to publicize this closure.

Given under my hand this 15 day of November 1984.

Harold C. King
Commissioner

APPENDIX A. CON'T

EXTENSION

Pursuant to my order of November 15, 1984, prohibiting through truck traffic on Routes 17 and 15 in Fauquier and Prince William Counties, and the provision therein whereby the prohibition could be modified or amended, the operations of such order are hereby extended for an additional forty-five (45) days until March 21, 1985, for those reasons outlined in my letter of this date to members of the State Highway and Transportation Commission.

Harold C. King, Commissioner

January 15, 1985

EXTENSION

[boilerplate boards and officials]

COMMONWEALTH of VIRGINIA

DEPARTMENT OF HIGHWAYS & TRANSPORTATION
1221 EAST BROAD STREET
RICHMOND, 23219

January 15, 1985

Memorandum

To: The Members of the State Highway and Transportation Commission

Subject: Closure of Route 17 between I-66 and Warrenton to Truck Traffic

In my memorandum of November 15, 1984 and in the Commission meeting on the same day, I advised that a temporary restriction would be instituted to ban through trucks for a period of ninety (90) days on a 10.35 mile section of Route 17 in Fauquier County to promote safety. Its parameters extend from the interchange of I-66 near Marshall to the intersection of Route 29/15 in the City of Warrenton. Through trucks were also barred on a 3.13 mile section of Route 15 in Prince William County from the intersection of I-66 near Haymarket to the intersection of Route 29. This restriction will terminate on February 17, 1985, prior to the Commission meeting.

The Department is currently evaluating the impact of this restriction. To enable us to maximize the time frame for consideration of any impacts and to bring this matter before the Commission at the March 21, 1985 meeting, I am extending the temporary restriction for a period of 45 days.

Harold C. King
Harold C. King, Commissioner

RWA:gyj
cc: Colonel R. L. Suthard
bcc: Mr. O. K. Mabry
Mr. J. M. Wray, Jr.
Mr. J. T. Warren
Mr. H. W. Worrall
Mr. J. S. Hodge
Mr. J. G. Ripley
Ms. Sally Cooper
Mr. John J. Beall
Mr. A. L. Thomas, Jr.

APPENDIX B.

RESOLUTION

MOVED BY Dr. Forrester SECONDED BY Mr. Bacon that

WHEREAS, under Section 33.1-12(3) of the Code of Virginia (1950), as amended, the State Highway and Transportation Commission is empowered to make rules and regulations, from time to time, for the regulation of traffic on the state highway system; and

WHEREAS, under Section 33.1-19 of the Code of Virginia, any such rule or regulation shall have the force and effect of law; and

WHEREAS, traffic and engineering studies undertaken by the Department of Highways and Transportation have revealed that twenty-two (22) tractor-trailer truck accidents involving four (4) fatalities and sixteen (16) injuries have occurred on Route 17 between the interchange of Interstate 66 near Marshall and the intersection of Route 29/15 in the Town of Warrenton since April 1, 1982; and

WHEREAS, because of the serious problem of tractor-trailer truck involvement in accidents on this highway which poses an ongoing problem given the ten foot (10') travel lanes and horizontal alignment of this rural two lane highway; and

WHEREAS, the occurrence of such accidents has dramatically increased since an initial safety study was completed by VDH&T in April 1982 regarding this roadway; and

WHEREAS, due to a similar problem on Route 15 from the interchange of Interstate 66 near Haymarket to the intersection of Route 29 that would arise because of the steps taken in reference to Route 17; and

WHEREAS, the portions of Route 17 and Route 15 described above are part of the state highway system and under the jurisdiction of the State Highway and Transportation Commission; and

WHEREAS, on November 15, 1984, the State Highway and Transportation Commissioner temporarily restricted the use of a 10.35 mile section of Route 17 in Fauquier County between the interchange of Interstate 66 near Marshall to the intersection of Route 29/15 in the Town of Warrenton and a 3.13 mile section of Route

RESOLUTION

15 in Prince William County between the interchange of Interstate 66 near Haymarket to the intersection of Route 29 by prohibiting the operation of vehicles which have two or more axles and six or more tires on those highways; and

WHEREAS, on January 15, 1985, the Commissioner extended the temporary closure to allow for the further study of the unsafe conditions, the effect of the temporary restriction, the receipt of public comment, and full consideration and final action by this Commission, and

WHEREAS, a comprehensive, in-depth analysis undertaken since the temporary closure has revealed that the closure imposed no appreciable negative impact on other area highway facilities, and has confirmed that the restriction as to tractor trailers is necessary for the safe use of the traveling public on the roadways in question;

NOW, THEREFORE, BE IT RESOLVED, that, based on the above reasons, traffic and engineering studies undertaken by the Virginia Department of Highways and Transportation prior to and since the temporary vehicle restrictions imposed on Route 17 and 15, and public comment received, those sections of Route 17 and 15 referred to above are hereby closed, effective this date, to the operation of tractor truck trailers and tractor truck semitrailers as defined in S 46.1-1 of the Code of Virginia, until the reconstruction of Route 17 from Warrenton to Marshall as a four lane, divided roadway is completed, or until this regulation is otherwise modified, amended or repealed by the Commission; and

BE IT FURTHER RESOLVED that such closure shall apply only to through traffic of such vehicles and not to such vehicles with points of origin or destination along the affected routes; and

BE IT FINALLY RESOLVED that proper signs be posted by the Department of Highways and Transportation notifying the traveling public of this closure and that other steps be taken to publicize this closure.

Motion Carried. March 21, 1985
Mr. Smalley abstaining.

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Statement

of

Wayne T. Curtin

Vice President of Government Relations

Motorcycle Riders Foundation

before

the

House of Representatives

Public Works and Transportation Committee's

Surface Transportation Subcommittee

on

Proposed National Highway System

March 3, 1994

INFORMATION ★ COMMUNICATION ★ ASSISTANCE
P.O. Box 1808, Washington, D.C. 20013-1808 • (202) 546-0983 • FAX# (202) 546-0986

Chairman Rahall, Mr. Perti and members of the Surface Transportation Subcommittee I thank you for giving me this opportunity to present testimony on behalf of the Motorcycle Riders Foundation and our members and member state organizations. I am here today primarily to ask you to include Congresswoman Snowe's legislation H.R.799, repealing the penalties of Section 153, title 23, U.S.C., in the National Highway System legislation.

We feel the National Highway System legislation is the appropriate legislation for you to consider including H.R.799. Like the National Highway System, Section 153 was created by ISTEA. The National Highway System Fund is one of the three funds penalized under the provisions of Section 153.

The supporters of helmet laws cite health care costs as the primary reason for mandatory helmet laws. Helmet laws are being referred to as a necessary component of health care reform. I question the soundness of a health care policy that necessitates mandated restriction of recreational activities to control health care costs. Yes, there is risk involved in motorcycling. But, so is there risk in many other recreational activities that Americans are involved in in their "Pursuit of Happiness." There is risk in bicycling, in mountain and rock climbing, in skiing, in scuba diving, in horseback riding, in football, in rugby, in hiking and camping, in boating, in hunting, in whitewater rafting, and in just walking down the street. What restrictions on or bans of other recreational activities will supporters of mandatory helmet laws seek in the future to "help control health care costs." Yes, there may be a need for health care reform in this country, but that issue should not dominate all other issues, especially those of personal Liberty and Freedom.

Supporters of helmet laws claim there is a need for such laws because motorcyclists don't carry adequate insurance and rely on public funds. Yes, some motorcyclists' do rely on public funds. But, so do many other Americans when they are injured. Supporters of helmet laws like to cite the percentage of motorcycle accident victims that rely on public funds for payment of medical treatment. What they don't tell you is that the general patient population of the hospitals those studies were done in used public funds at a higher percentage than motorcyclists. One of the most referred to

studies in testimony on helmet laws before State legislative committees is a study conducted at Harborview Medical Center in Seattle, Washington, a regional trauma center. The study states that 63.4% of injured motorcyclists relied on public funds to pay their health care bills. What the supporters of helmet laws don't tell you is that 67% of the general patient population at Harborview relied on public funds. Other studies support the fact that motorcyclists injured in accidents pay their own bills at a rate equal to or higher than the general patient population.

Supporters of helmet laws want you to believe that motorcyclists don't carry insurance. In a study that Jane C. Stutts of the University of North Carolina Highway Safety Research Center presented at the Transportation Research Board's annual meeting in January, it was found that:

> "Motorcyclists admitted to a trauma center for treatment of crash-related injuries were just as likely as other road trauma cases to be medically insured: 49% of motorcycle operators and passengers were either commercially or privately insured, compared to 51% of road trauma cases. The percentage of non-road trauma cases (victims of falls, cuts, etc.) was lower, at 42%."[1]

This study also found that motorcyclists were dependent on Medicare/Medicaid only 8% of the time, compared to 14% for other road trauma victims.

Considering the obstacles facing motorcyclists in getting insurance the fact that motorcyclists don't have to rely on public funds more than the general patient population is a significant accomplishment. In recent years, in an attempt to reduce employee benefit costs, insurers have offered employers reduced cost policies if they excluded coverage for employees injured in motorcycle accidents, even if the motorcyclist was not at fault. Many self-insured Unions are starting to do the same. In addition, in many States motorcyclists can not purchase supplemental personal injury protection insurance. If there is a problem of motorcyclists being under insured, it is not because motorcyclists don't want to and try to get coverage. The problem is that like many Americans insurance is not always available to motorcyclists.

ISTEA was hailed as having a new approach that would allow the States more flexibility with their federal-aid highway funds. The penalty provision of Section 153, enacted under ISTEA, does not allow the States flexibility as how they choose to address the issue of motorcycle accidents and injuries. This mandate and its lack of flexibility have caused considerable legislative conflicts in state legislatures. The amount of the penalties is irresponsibly throwing money at the problem. States are being forced to spend as much as ten times the amount they are currently spending on 402 safety programs.

State legislators have been dealing with the helmet law issue for almost thirty years. During the last fifteen years state legislators have worked with motorcyclists to develop motorcycle safety and motorist awareness programs. This approach has had significant results. Since 1980, when motorcycle accidents and fatalities reached an all time high, motorcycle accidents have dropped by 53.4%, from 177,160 in 1980 to 82,428 in 1992 and fatalities are down 52.9%, from 5,097 in 1980 to 2,398 in 1992.[2]

The State legislatures and motorcyclists have found ways to reduce motorcycle accidents and fatalities, without adult helmet laws. State motorcycle safety programs have been funded by raising the fees on motorcycle licenses and registrations. In the 42 States with this type of legislation over $13,000,000 is raised every year for rider education and motorist awareness. In addition, millions more in course fees are paid each year by those taking the courses. These programs are run without the use of other scarce State financial resources.

In 1993, two important milestones were reached in motorcycle safety. Nationally, the one millionth student completed a motorcycle rider education program utilizing the Motorcycle Safety Foundation's curriculum. And, on the State level, Illinois became the first State to graduate 100,000 students from its State motorcycle safety program.

One could understand a federal mandate if State governments were ignoring a problem or the approach the States were taking was causing the problem to increase. But, motorcycle accidents and fatalities are down. State legislatures need flexibility in dealing with many issues. Motorcycle safety is one of those areas and the Section 153 penalties do not allow States full flexibility with their federal-aid highway funds. Motorcyclists and State legislators have taken responsibility for our own safety, and the federal mandates of Section 153 are a disincentive to citizen activism.

Since the passage of ISTEA only one State, Maryland, has passed a helmet law. I think it is significant that qualifying for a grant under Section 153 was the driving force for passage, not the penalty. However, the other 25 States without comprehensive helmet laws rejected helmet laws last year under the threat of penalties. So far in 1994, the Colorado, Utah, Connecticut and Kansas Legislatures have taken committee and floor votes to defeat helmet laws. The only legislation that has moved in State legislatures have been resolutions calling for Congress to repeal the Section 153 penalties. This federal mandate unfairly and unnecessarily puts State legislators in the position of having to force its citizens to do something they have expressed through our political system they don't want to do. Or, they are forced to spend funds in a manner that may not be in the best interest of the State's needs and economy.

Last May, Delaware State Representative Roy, representing the National Conference of State Legislatures, testified before this subcommittee and stated the Section 153 penalties were one of the mandates in ISTEA that was causing the State legislatures the most problems. On February 17, Alaska's Commissioner of the Department of Transportation and Public Facilities, Mr. B.A. Campbell, wrote a letter to his colleagues in the States facing Section 153 penalties asking them to unite in an effort to repeal these penalties. At the National Governor's Association's recent Washington meeting the Governors asked the federal government to give them relief from so many federal mandates. The Section 153 penalties are one mandate this subcommittee can give the States relief from.

The States have taken action and spend millions of dollars in State funds annually on motorcycle safety. Motorcycle accidents and injuries have declined since 1980 at a rate that no other segment of the motoring population can match. Motorcyclists are not the social burden that supporters of helmet laws would like for you to believe. Motorcyclists carry insurance at a rate equal to the rest of the general population, because we are representative of the general population. Motorcyclist rely on public fund for our medical needs less than the general patient population. There is broad support in Congress for repeal of the Section 153 penalties. There are 119 sponsors, from 41 States, of Congresswoman Snowe's legislation H.R.799.

On behalf of the individual members and member State motorcyclists organizations of the Motorcycle Riders Foundation, I ask you to include a repeal of the Section 153 penalties in the National Highway System legislation.

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[1] *An Examination of Motorcyclist Injuries and Costs Using North Carolina Motor Vehicle Crash and Trauma Registry Data, Stutts and Martell–University of North Carolina Highway Safety Research Center.*

[2] *Motorcycle Industry Council's Statistical Annuals - 1981 through 1993.*

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MOTORCYCLE ACCIDENTS AND FATALITIES FROM 1980 THROUGH 1992

YEAR	ACCIDENTS	FATALITIES
1980	177,160	5,097
1981	175,022	4,844
1982	165,689	4,540
1983	168,439	4,396
1984	169,685	4,584
1985	170,275	4,627
1986	163,983	4,525
1987	142,187	4,026
1988	126,972	3,567
1989	106,261	3,105
1990	103,650	3,172
1991	95,228	2,790
1992	82,428	2,398
	Down 53.47%	Down 52.95%

Source: Motorcycle Industry Council Statistical Annuals (1981-1993)

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H.R.799

To amend title 23, United States Code, to remove the penalties for States that do not have in effect automobile safety belt and motorcycle helmet laws, by October 1, 1993.

Sponsor - Congresswoman Snowe
Introduced February 3, 1993
Cosponsors

Representative	Party/State	Notes	Date Signed-on
Abercrombie, Neil	D-Hawaii		02/04/93
Allard, Wayne	R-Colorado		03/18/93
Applegate, Doug	D-Ohio	1,2	03/25/93
Baker, Bill	R-California	1,2	09/08/93
Baker, Richard	R-Louisiana		03/01/94
Barca, Peter	D-Wisconsin	1,2	08/04/93
Barcia, James	D-Michigan	1	09/13/93
Barlow, Tom	D-Kentucky		09/23/93
Bereuter, Doug	R-Nebraska		Original Cosponsor
Blute, Peter	R-Massachusetts	1,2	07/21/93
Boehner, John	R-Ohio		Original Cosponsor
Brewster, Bill	D-Oklahoma		06/09/93
Burton, Dan	R-Indiana		Original Cosponsor
Buyer, Steve	R-Indiana		03/10/93
Clinger, William	R-Pennsylvania	1,2	04/22/93
Clyburn, James	D-South Carolina	1,2	03/10/93
Coble, Howard	R-North Carolina		04/29/93
Collins, Mac	R-Georgia	1,2	04/20/93
Costello, Jerry	D-Illinois	1,2	06/22/93
Cox, Christopher	R-California		03/16/93
Crane, Philip	R-Illinois		Original Cosponsor
Crapo, Michael	R-Idaho		04/20/93
Cunningham, Duke	R-California		04/21/93
Danner, Pat	D-Missouri	1,2	Original Cosponsor
Dickey, Jay	R-Arkansas		03/02/93
Doolittle, John	R-California		Original Cosponsor
Dornan, Robert	R-California		08/04/93
Fawell, Harris	R-Illinois		Original Cosponsor
Filner, Bob	D-California	1	03/16/93
Fingerhut, Eric	D-Ohio		09/08/93
Frank, Barney	D-Massachusetts		Original Cosponsor

Representative	Party/State	Notes	Date Signed-on
Franks, Gary	R-Connecticut		02/16/93
Gallegly, Elton	R-California		Original Cosponsor
Gallo, Dean	R-New Jersey		08/04/93
Gilchrest, Wayne	R-Maryland	1	07/01/93
Gillmor, Paul	R-Ohio		Original Cosponsor
Gingrich, Newt	R-Georgia		03/18/93
Glickman, Dan	D-Kansas		05/11/93
Goss, Porter	R-Florida		Original Cosponsor
Grams, Rod	R-Minnesota		Original Cosponsor
Grandy, Fred	R-Iowa		Original Cosponsor
Gunderson, Steve	R-Wisconsin		02/16/93
Hall, Ralph	D-Texas		06/22/93
Hamilton, Lee	D-Indiana		02/04/93
Hancock, Mel	R-Missouri		Original Cosponsor
Hansen, James	R-Utah		Original Cosponsor
Hastert, J. Dennis	R-Illinois		Original Cosponsor
Hinchey, Maurice	D-New York		04/28/93
Hoke, Martin	R-Ohio		02/16/93
Hoyer, Steny	D-Maryland		06/09/93
Hutchinson, Tim	R-Arkansas	1,2	03/10/93
Hyde, Henry	R-Illinois		02/04/93
Istook, Ernest	R-Oklahoma		04/28/93
Inhofe, James	R-Oklahoma	1	Original Cosponsor
Jacobs, Andrew	D-Indiana		Original Cosponsor
Kaptur, Marcy	D-Ohio		Original Cosponsor
Kasich, John	R-Ohio		09/29/93
Klug, Scott	R-Wisconsin		02/18/93
Kolbe, Jim	R-Arizona		02/18/93
Kopetski, Mike	D-Oregon		Original Cosponsor
LaRocco, Larry	D-Idaho		02/16/93
Lehman, Richard	D-California		Original Cosponsor
Lewis, Jerry	R-California		03/16/93
Lightfoot, Jim	R-Iowa		Original Cosponsor
Livingston, Bob	R-Louisiana		Original Cosponsor
Lloyd, Marilyn	D-Tennessee		10/20/93
Long, Jill	D-Indiana		02/16/93
Mann, David	D-Ohio		04/21/93
Manzullo, Donald	R-Illinois		02/16/93
McCloskey, Frank	D-Indiana		02/04/93
McHugh, John	R-New York		04/28/93
Michel, Robert	R-Illinois		07/01/93
Minge, David	DFL-Minnesota		Original Cosponsor
Mink, Patsy	D-Hawaii		05/24/93
Myers, John	R-Indiana		Original Cosponsor
Nussle, Jim	R-Iowa		09/23/93
Orton, Bill	D-Utah		Original Cosponsor
Pallone, Frank	D-New Jersey		Original Cosponsor
Peterson, Collin	DFL-Minnesota		Original Cosponsor
Penny, Timothy	DFL-Minnesota		Original Cosponsor

Representative	Party/State	Notes	Date Signed-on
Petri, Thomas	R-Wisconsin	1,2,3	Original Cosponsor
Pombo, Richard	R-California		09/23/93
Poshard, Glenn	D-Illinois	1,2	Original Cosponsor
Pryce, Deborah	R-Ohio		03/16/93
Ramstad, Jim	R-Minnesota		Original Cosponsor
Reed, Jack	D-Rhode Island		05/25/93
Roberts, Pat	R-Kansas		04/20/93
Roemer, Tim	D-Indiana		Original Cosponsor
Rohrabacher, Dana	R-California		Original Cosponsor
Roth, Toby	R-Wisconsin		03/10/93
Royce, Ed	R-California		04/22/93
Sanders, Bernard	I-Vermont		03/10/93
Schaefer, Dan	R-Colorado		05/24/93
Schiff, Steven	R-New Mexico		05/19/93
Sensenbrenner, Jim	R-Wisconsin		Original Cosponsor
Sharp, Philip	D-Indiana		Original Cosponsor
Skeen, Joe	R-New Mexico		04/20/93
Slattery, Jim	D-Kansas		11/19/93
Snowe, Olympia	R-Maine		Sponsor
Solomon, Gerald	R-New York		04/22/93
Spence, Floyd	R-South Carolina		02/18/93
Strickland, Ted	D-Ohio		03/10/93
Stump, Bob	R-Arizona		Original Cosponsor
Sundquist, Don	R-Tennessee		02/08/94
Swett, Dick	D-New Hampshire	1,2	Original Cosponsor
Taylor, Charles	R-North Carolina		10/06/93
Thomas, Craig	R-Wyoming		Original Cosponsor
Thurman, Karen	D-Florida		Original Cosponsor
Torkildsen, Peter	R-Massachusetts		07/21/93
Traficant, James	D-Ohio	1,2	04/28/93
Unsoeld, Jolene	D-Washington		05/11/93
Vucanovich, Barbara	R-Nevada		Original Cosponsor
Walsh, James	R-New York		03/10/93
Weldon, Curt	R-Pennsylvania		05/26/93
Williams, Pat	D-Montana		04/21/93
Wilson, Charlie	D-Texas		08/04/93
Young, Don	R-Alaska		03/10/93
Zeliff, Bill	R-New Hampshire	1,2	Original Cosponsor
Zimmer, Dick	R-New Jersey		Original Cosponsor

Total Sponsors = 119 (Dem-44 Rep-74 Ind-1 States-41) Revised 03/01/94

Notes:

(1) Member of Public Works and Transportation Committee (19)
(2) Member of Surface Transportation Subcommittee (15)
(3) Ranking Minority Member of Surface Transportation Subcommittee

82-611 – 94 – 12

TESTIMONY OF
ALBERT E. DEATLEY
CHAIRMAN, NATIONAL ASPHALT PAVEMENT ASSOCIATION

PRESENTED TO THE
SUBCOMMITTEE ON SURFACE TRANSPORTATION OF THE
HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

March 3, 1994

Mr. Chairman, my name is Albert E. DeAtley. I am a highway contractor from Yakima, Washington and Chairman of the National Asphalt Pavement Association (NAPA). We commend the Subcommittee for holding these hearings and appreciate the opportunity to present our views on the National Highway System (NHS) and Section 1038 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).

NAPA is the national trade association exclusively representing the Hot Mix Asphalt (HMA) Industry. We have a membership of nearly 800 corporations, most of which are HMA producers and paving contractors. The majority of our members are small businesses and our member firms produce approximately 70 to 75 percent of the total HMA produced in the United States annually.

The two top legislative priorities for NAPA are Congressional approval of the NHS and amending Section 1038 of ISTEA, "Use of Recycled Paving Material", to remove the mandatory minimum utilization requirements for crumb rubber modified asphalt.

THE NATIONAL HIGHWAY SYSTEM

Throughout these hearings, there has been an abundance of compelling testimony by the federal government (USDOT and FHWA), the states and the private sector, documenting the essentiality of an NHS to the economy of this country. We can add little to the facts and figures already presented and we urge timely approval of the NHS by Congress. There are some strong proponents for a National Transportation System (NTS) in lieu of an NHS. An NTS would incorporate the most significant elements of the nation's transportation systems from all modes involved in moving both people and freight, as well as facilities owned by both private business and the public sector.

The NHS, which carries 40 percent of car travel and 75 percent of truck traffic, would be--as it is now--the backbone of any total transportation system. Those of us who live and work in urban centers tend to forget that vast areas of our country are linked only by highways. And it is over these highways that freight, emergency vehicles, farmers, businessmen, school children, and tourists travel. An NTS may well be a second step for Congress to take, but such a step requires much more study. Approval of the NHS should in no way be involved with or delayed by any study or designation of an NTS. We endorse the concept of an NTS. Taken at face value it makes a lot of sense for the country. However, the NTS is an issue that can best be addressed when a total reauthorization bill is considered in 1996 or 1997.

As to funding, ISTEA currently permits NHS funds to be used for transit under certain conditions. Also, 50 percent of NHS funds can be transferred to the Surface Transportation Program (STP) at the state's discretion. Up to 100 percent can be transferred with the approval of the Secretary of Transportation. We would suggest that Congress re-examine these provisions in light of the importance of the NHS to the country. The STP is a completely flexible program where the states and local governments decide on mode, project priorities and type of projects. We strongly recommend that the NHS funds be limited to use on the NHS unless a state can clearly demonstrate that it has no further needs on that system, that all segments are built to minimum AASHTO standards, and that the surface conditions require no improvement.

In summation, approval of the NHS is essential to the economy of the nation and the individual states. It will be the backbone of the U.S. transportation system into the 21st century. Failure to approve an NHS spells the end of a meaningful Federal-aid highway program. There will be no need to collect highway user revenues at the federal level, as there will be no real national focus to our highway program. It will become no more than a revenue sharing program resulting in a balkanization of the transportation system and a disincentive to economic activity resulting in an overall degradation of economic conditions and quality of life.

SECTION 1038 - "USE OF RECYCLED PAVING MATERIAL"

Last spring, in a letter to the Chairman dated April 16, 1993, NAPA provided testimony for the record to this Subcommittee concerning the implementation of Section 1038 of ISTEA. A copy of that letter is attached as Exhibit A. Our main concern is Section 1038(d), the minimum utilization requirements. These are that 5 percent of the Federal-aid HMA tonnage in 1994, 10 percent in 1995, 15 percent in 1996, and 20 percent in 1997 and the years thereafter, contain crumb rubber modifier. A state's failure to comply results in the loss of highway funds. We have stated our concerns with the cost, engineering properties, recyclability and unknown health and environmental impacts related to the use of crumb rubber asphalt. Section 1038(d) is unprecedented in mandating the use of a specific product in the highway program with so little knowledge about the product itself or the consequences of its use. Let me briefly summarize our concerns:

COSTS & PERFORMANCE

Crumb rubber modified HMA costs more than conventional HMA. While there are claims that the cost of the product has come down, the latest information we have is from the AASHTO survey of September of 1993 which indicates that for projects bid and constructed in 1993, the cost of crumb rubber modified Hot Mix Asphalt was some 67 percent more than the cost of conventional HMA. A copy of the AASHTO survey results dated September 24, 1993, is attached as Exhibit B.

Substantially increased costs means that the amount of pavement that transportation officials can provide the traveling public will be reduced within a given budget.

There are claims that the product performs better than conventional HMA. While a few states are specifying the use of crumb rubber modified HMA for certain applications, there are no definitive studies which supports this assertion under all traffic conditions and climates.

ENGINEERING PROPERTIES

There is limited knowledge in the states and the Industry on pavement structural design, mix design and production, and construction methods of crumb rubber modified HMA. The mandated use of the product without such knowledge will result in premature failures and wasted dollars. This casts the HMA Industry and the entire highway program in a bad light. We can ill afford such setbacks in these times where highway improvements are sorely needed and the competition for the transportation dollar is extremely tough.

RECYCLABILITY

The HMA Industry has been a leader in recycling its product since the 1970's, before recycling became fashionable. According to figures published by FHWA, 73 million metric tons out of the 91 million tons of asphalt pavement removed each year are reused in other highway projects.

Whether the addition of rubber to HMA will have an adverse impact on its recyclability for engineering, health, or environmental reasons is unknown. We, several states (including California, a leading proponent of the product), and FHWA have raised questions on this issue. If for some reason, crumb rubber modified HMA is not recyclable, mandating its extensive use would be disastrous to the Industry, the states, and society in general.

ENVIRONMENTAL IMPACTS

We don't know if the addition of crumb rubber modifier to HMA will create additional air quality problems. Most HMA facility owners have gone to considerable expense to control emissions from conventional HMA in order to meet clean air requirements. Any increase in emissions will result in significant costs to the producer to mitigate the problem. This would further increase the costs of the end product.

HEALTH IMPACTS

There is a similar issue with asphalt fumes. For the past several years, representatives of the HMA Industry have been working with federal officials on permissible exposure levels for asphalt fumes. We have conducted studies that show worker exposure to fumes from conventional HMA does not pose a significant problem. However, the addition of crumb rubber to the mix introduces the concern that there could be adverse health impacts on the workers because of the composition of the tires and the higher temperatures required to produce the mix.

If there are adverse health effects, the liability falls on the industry. This can result in higher costs of insurance and workmans compensation, as well as for additional protective equipment for the workforce.

Our April 16, 1993, letter also submitted information on several cost-effective uses for scrap tires which are environmentally benign and have the potential to use many more scrap tires than could be used in HMA.

We suggested several alternate courses of action as follows:

1. That Section 1038(d) be amended to allow flexibility in meeting the minimum utilization requirements. In other words, let the states be permitted to determine where in transportation projects these percentages of scrap tire rubber would be used.

2. That a more appropriate place to treat the scrap tire problem would be in the Resource Conservation and Recovery Act (RCRA) whereby each state would be required to develop its own plan for solving the scrap tire problem. For states that submit an acceptable plan, the minimum utilization requirements of ISTEA would not apply.

3. Defer implementation of these minimum utilization requirements until the research required by Section 1038 has been completed and submitted to Congress and Congress approves going ahead with implementation.

Similarly, last spring we presented testimony before the House Transportation Appropriations Subcommittee. That testimony also detailed our concerns and recommended that implementation be deferred until Section 1038 could be amended and/or the required research was completed. AASHTO and several other organizations testified to similar concerns.

As a result, Congress in passing the 1994 DOT Appropriations Act, placed a moratorium on any funding sanctions for failure to use crumb rubber from scrap tires in 5 percent of the Federal-aid HMA tonnage in 1994. Further, Congress directed that research be undertaken on the cost and performance, as well as the health and environmental impacts of using crumb rubber modifier in HMA. One of the stated purposes of the moratorium was to permit this research to be completed before the minimum utilization requirements went into effect.

FHWA is in the process of awarding a comprehensive research project to evaluate crumb rubber modifier technology as it relates to design, construction, recycling and pavement performance. Many of the issues raised earlier in my testimony should be resolved by this research. Results, however, will not be available for at least a couple of years. We are not aware of any national research activities on the health and environmental issues.

The conclusion is obvious; little more is known about the product than was known last year.

We believe the case has been solidly made for either repealing the minimum utilization requirements of Section 1038 or amending them to provide the states the flexibility on how to get rid of their scrap

tires. We support AASHTO Policy Resolution PR-18-93, approved by the AASHTO Board of Directors on October 24, 1993. A copy of this resolution is attached as Exhibit C. It recommends that Section 1038(d), the minimum utilization requirements, be repealed or in the alternative, modified to permit flexibility.

We, NAPA, are not against the crumb rubber technology per se. What we do oppose is another unfunded mandate imposed on recipients of Federal-aid funds as well as the industry, with limited research or performance data to justify it. That perhaps is really the crux of the issue. Traditionally, the agency that owns the road is responsible for the mix design and the materials that go into the pavement. Crumb rubber is an asphalt modifier. An agency may specify one of numerous HMA modifiers which are on the market to impart certain characteristics to the finished product. When electing to use any such modifier, the agency and the contractor have a right to be reasonably assured that it will perform as intended and not have any adverse impacts. Such assurance is not yet available for crumb rubber.

The Strategic Highway Research Program has recently been completed; $50 million was devoted to improving the performance of Hot Mix Asphalt pavements. Performance-based specifications were developed for the asphalt binder and are under development for the Hot Mix Asphalt mix. Should all this research be circumvented in order to accommodate this special purpose legislation? Absolutely not. Crumb rubber should take its place with other modifiers and compete in the marketplace and not be the subject of any special considerations.

We appreciate the opportunity to present this testimony Mr. Chairman, and are available to answer any questions.

Attachments

EXHIBIT A

NATIONAL ASPHALT PAVEMENT ASSOCIATION
NAPA Building ■ 5100 Forbes Boulevard ■ Lanham, Maryland 20706-4413 ■ Tel: (301) 731-4748 ■ Fax: (301) 731-4621
Mike Acott, President

April 16, 1993

The Honorable Nick J. Rahall, II, Chairman
Subcommittee on Surface Transportation
Committee on Public Works and Transportation
U.S. House of Representatives
B-376 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

The National Asphalt Pavement Association (NAPA) requests that this statement be included in the record of the April 20 and 21, 1993, hearings on Implementation of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). We commend the Subcommittee for holding these hearings and appreciate the opportunity to present our views.

NAPA is the national trade association exclusively representing the Hot Mix Asphalt (HMA) Industry. We have a membership of nearly 800 corporations, most of which are HMA producers and paving contractors. The majority of our members are small businesses and our member firms produce approximately 70 to 75 percent of the total HMA produced in the United States annually.

Our stated legislative policy on the Federal-aid highway program is that the full amounts authorized in Federal-aid highway legislation be made available to the states for expenditure without obligational constraints. Further, all highway user fees should go into the Highway Trust Fund and be dedicated and available for use for transportation purposes.

We, therefore, support the Administration's and this Committee's initiative in providing full funding for ISTEA for 1993 and for the remaining years covered by ISTEA. We further support the initiative to extend the 2.5 cents of the federal fuel tax beyond 1995 and that the proceeds go into the Highway Trust Fund. This is necessary to fully fund ISTEA without triggering the Byrd Amendment.

Our industry does have some serious concerns, however, about the implementation of Section 1038, "Use of Recycled Paving Material." Section 1038 requires, among other things, that a certain percentage of HMA tonnage constructed with Federal-aid funds contain crumb rubber from scrap tires. These minimum utilization requirements are that 5 percent of the Federal-aid HMA tonnage in 1994, 10 percent in 1995, 15 percent in 1996, and 20 percent in 1997, contain crumb rubber modifier (CRM). Failure to comply results in the loss of Federal-aid highway funds.

Section 1038 further requires the USDOT and EPA conduct a study on the health and environmental impact, recyclability, and performance of asphalt rubber. There is also a provision that the

Secretary of Transportation can waive the minimum utilization requirements for a three-year period under certain conditions:

- The use of asphalt rubber poses threats to human health or the environment greater than conventional HMA.
- Asphalt rubber can't be recycled to the same degree as conventional HMA.
- Asphalt rubber pavements do not perform adequately as a material for the construction or surfacing of highways and roads.

The Secretary is to consider the results of the study mentioned above in determining whether a waiver is appropriate. A report is to be submitted to Congress within 18 months after passage of the Act (or June 18, 1993). Unfortunately, the report will not provide definitive answers as there is little information available on these issues.

Our concerns are the lack of knowledge of the health and environmental effects and engineering properties of rubber modified asphalt as well as the high cost of the product.

Perhaps it is late in the game for raising our concerns, but it has taken us considerable time to develop other solutions to the scrap tire problem. We hesitate to ask for relief without being able to offer some alternatives.

THE TECHNOLOGY

The use of ground rubber in HMA is not new technology, but has been in somewhat limited use for over 20 years. Except for a few localities, it has not received wide acceptance.

Two basic methodologies used to incorporate crumb rubber modifier (CRM) derived from scrap tires into HMA pavements are the wet and dry processes. The wet process describes a method that adds CRM to the liquid asphalt cement and blends the mixture prior to the manufacturing of HMA. The dry process basically includes the addition of the CRM directly into the HMA manufacturing process as an aggregate substitute. Certain of the wet and dry processes are covered by patents though in recent years several non-patented processes are being tried by the states and industry.

The use of asphalt rubber has been shown to be technically feasible but there are many questions that still need to be answered concerning this product. They include the health and environmental effects, recyclability, performance, and cost effectiveness.

Section 1038 does require studies into all of these areas (as mentioned above) except cost effectiveness.

COST IMPACTS

AASHTO, in analyzing the results of a recent survey of all the states on asphalt rubber, estimates that by 1997, at full implementation of Section 1038, the additional costs will be

approximately $1 billion per year. That is $1 billion that won't be available for other needed highway construction. Up to 60,000 jobs per year could be lost. This is attributed to the costs of adding 20 pounds of CRM per ton of HMA constructed with Federal-aid funds. The 20 pounds per ton is a fairly typical mixture for CRM modified asphalt.

Here's another way of looking at cost:

* An average passenger car tire weighs about 20 pounds. Approximately 50 to 60 percent of the tire is usable as CRM.

* At 20 pounds per ton, that's two tires per ton of HMA.

* Rubber modified asphalt costs between 50 and 100 percent more than conventional HMA.

* HMA costs about $30 per ton. Using the more conservative 50 percent increase, rubber modified asphalt costs $45--or $15 more per ton.

* That's $7.50 per tire to dispose of them in HMA. That still leaves somewhere around 40 to 50 percent of the tire that can't be used in HMA to be otherwise disposed of.

This clearly is not the most economical way to solve the scrap tire problem, unless these increased costs are offset by increased performance. Referring to the aforementioned AASHTO survey, most states believe that this will not be the case.

Crumb rubber is an asphalt modifier of which there are literally hundreds. It may or may not enhance performance in certain applications. If certain states have success with it, they should continue to use it based on engineering and economics, the same as the many other modifiers that are on the market. As a solution to the scrap tire problem, it just doesn't make any sense economically. As a performance enhancer in HMA, it should be left up to each individual state, but, again from an economic standpoint, there's absolutely no definitive information which would lead to the conclusion that it is worth the added cost; at least not at this point in time.

HEALTH AND ENVIRONMENTAL IMPACTS

Most HMA facility owners have gone to considerable expense to control the emissions from conventional HMA in order to meet Clean Air Act or state air control emission standards. With the addition of CRM, mixing has to take place at a higher temperature than conventional HMA. We do not know what the impact of this addition of CRM and mixing at a higher temperature will have on emissions. According to the AASHTO survey mentioned above, the Texas Air Control Board has stopped issuing permits for plants producing asphalt rubber until it can be shown that CRM will not harm the environment or adjacent property inhabitants. Michigan reported that its Department of Natural Resources has taken a like position. There has to be more research done before use of asphalt rubber becomes mandatory and widespread.

The question is similar with regard to asphalt fumes and its potential impact on workers. For the past several years representatives of the industry have been in negotiation with federal officials on permissible exposure levels for asphalt fumes. The industry has conducted studies that show that worker exposure to asphalt fumes from conventional HMA does not pose a significant problem. However, the use of CRM introduces the concern that worker exposure may be more severe because of the chemicals contained in tires and the higher temperatures. There have been few studies on this issue with the result that there is no definitive answer to the question. On a recent NAPA-sponsored study of worker exposure on a wet process project in California, the researchers note in the report:

> "The fume generated by the paving activities was reported to be dense and light-brown to gray in color, especially in the immediate vicinity of the paving equipment. The industrial hygienist reported that, relative to previous exposure monitoring studies performed at paving sites using standard asphalt hot mix materials, the degree of fume generation during paving using the asphalt/rubber hot mix materials appeared to be significantly greater."

Attached as Exhibit A are the conclusions from that report. This study was not designed nor intended to be definitive, but we believe it points out that further research and exposure assessments need to be conducted on this material.

Perhaps this best can be summed up by quoting the concluding paragraph from the March 1993 status report by the Scrap Tire Application Committee of the Ontario, Canada Ministry of Transportation:

> "The development of new product applications must be accompanied by appropriate environmental and toxicological assessments. Collection of environmental data, such as leachates and emissions without doing a comprehensive environmental impact assessment is considered inadequate. Where large-scale applications, such as paving with rubber-modified asphalts are involved, long-term impact assessments are a must."

In a letter dated December 24, 1992, NAPA petitioned the USDOT and EPA to defer implementation of the minimum utilization requirements until the required research has been completed. The main basis of the petition is the potential increased health threat to our workers because of the unknown constituents of the fumes from asphalt rubber. As mentioned above, Section 1038 of ISTEA does require a study to be submitted to Congress this June. Unfortunately, this study will only contain the results of a literature search of existing information. In our opinion, this is inadequate because limited information is available on this subject. The Federal Highway Administration (FHWA) and EPA had planned to begin a comprehensive research effort this year to develop definitive answers to the issues posed in the legislation. We now understand that EPA does not intend to undertake further research on the health and environmental effects. Incidentally, we have not yet received a response from USDOT though an EPA response indicated they could not concur in any delay.

RECYCLABILITY

Conventional asphalt pavement is completely recyclable. Our industry and the states were recycling asphalt pavements since the 70's, before it became fashionable. We don't know whether the addition of rubber to HMA, even in small amounts, will have an adverse impact on the recyclability of HMA. The engineering, health and environmental effects should be examined. If the addition of 20 pounds of crumb rubber to one ton of HMA renders it not recyclable, then we are exchanging a 20 pound problem for a 2,000 pound problem. This makes no sense at all. It's just another question that must be answered expeditiously.

THE SOLUTION

Attached to this letter is Exhibit B, the Executive Summary of the NAPA "Scrap Tire Utilization Technologies" report. Copies of the report have been furnished to this Subcommittee. The report uses engineering feasibility and economic analysis to evaluate various technologies for the use of scrap tires. It also considers potential environmental implications. It clearly points out that there are much more economical and environmentally benign ways to solve the scrap tire problem than Section 1038 of ISTEA. There are several alternative courses of action which can be taken on this issue as follows:

1. We urge that Section 1038(d) of ISTEA be amended to allow flexibility in the minimum utilization requirements. The minimum utilization requirements should be expanded to uses other than in HMA. Use in bases, lightweight fills, retaining walls, shoulder stabilization, etc., should be permitted to fulfill the minimum utilization requirements. Further, use in other than Federal-aid work should be counted toward the minimum utilization requirements. If the goal is to get rid of scrap tires, and not to expand the market for asphalt rubber, it makes sense to provide the states with a range of options for solving the scrap tire problem.

2. The solution to the scrap tire problem does not lie with any specific technology and would be more appropriately addressed in a comprehensive rather than piecemeal fashion. We urge you to take a leadership role in enacting legislation during the 103rd Congress that would require each state to devise its own solution to the scrap tire issue with the goal of eliminating the backlog of scrap tires as well as the annual accumulation. Each state should be required to submit a plan to EPA that identifies how it intends to handle its scrap tire problem. This legislation should be technology-neutral leaving it to the states to determine the best way of solving the problem. For those states that submit an acceptable plan to EPA, the minimum utilization requirements of ISTEA would not apply.

3. Defer implementation of the minimum utilization requirements until the required research has been completed and submitted to the Congress and Congress approves going ahead with implementation.

We believe that our position is supported completely by the experience of the states as reflected in the results of the AASHTO survey and that there is adequate basis for this Subcommittee to revisit Section 1038 of the ISTEA and take the necessary action to amend it.

In these times of environmental sensitivity, economic uncertainty and tight budget, a more rational approach is surely in order.

Sincerely,

R. D. Morgan
Vice President

RDM/KMW

Attachments

EXHIBIT 8

American Association of
State Highway and
Transportation Officials

Wayne Mun, President
Chief Engineer
Missouri Highway
and Transportation
Department

Francis B. Francois
Executive Director

September 24, 1993

MEMORANDUM

To: Standing Committee on Highways

From: Amy Steiner

Subject: AASHTO CRUMB RUBBER MODIFIED (CRM) 1993 COST SURVEY

At the request of Senate staff, AASHTO was requested this week to provide information on 1993 cost experience by the states with crumb rubber modified hot mix asphalt projects (CRM HMA), based on actual project costs. In the Association's earlier 1993 AASHTO Rubberized Asphalt Survey released on April 1, 1993, actual costs for 1992 projects was reported, state by state. The Senate staff desires information for 1993 costs, to compare with the 1992 costs in the April 1 report.

To respond to this request, on September 23 AASHTO Headquarters faxed a survey form to its member departments, asking for 1993 project cost information for the months of January through September, 1993. The survey was forwarded to all member departments, but concentrated on the 34 departments who advised in our 1993 AASHTO Rubberized Asphalt Survey that they planned to construct at least one crumb rubber modified hot mix asphalt pavement project during 1993. By today's survey return deadline, 38 member departments had responded.

The member departments were requested to provide information under the following headings, based on actual bid prices for their projects, with price/Ton referring to the asphalt mix, not the liquid asphalt.

Number, Size and Cost of Contracts Awarded in Calendar 1993

Month	Number of CRM HMA Projects	Ave. Size in Tons	Ave. Cost/Ton Patented Process	Ave. Cost/Ton Unpatented Process	Ave. Cost/Ton Conventional HMA

Executive Office 444 N. Capitol St., N.W., Suite 249, Washington D.C. 20001
Telephone (202) 624-5800 Telefax (202) 624-5806 Telex 4900009580 HTO

Working To Connect America

Below is TABLE A summarizing the results from the survey, state by state. Of the 38 responding states, 13 reported that they have not yet undertaken a CRM HMA project in 1993. Accordingly, TABLE A includes cost data from 25 states that have 1993 CRM HMA projects.

The average cost of CRM HMA pavements for the six states reporting utilization of a patented process was $44.81/Ton. The range of cost for the CRM HMA was from a low of $35.58/Ton (KS) in June, to a high of $56.00/Ton (NV) in August. The average cost paid for conventional HMA in these six states was $24.23/Ton, ranging from a low of $18.59 (MT) in June, to a high of $28.65 (KS) in June.

Of the 22 states reporting use of an unpatented process, three states also used a patented process. The 22 states utilizing an unpatented process reported an average cost for CRM HMA of $48.35 per ton, from a low of $30.00 (OH) in February, to a high of $98.07/Ton (AL) in July. The average cost paid for conventional HMA in these 22 states was $29.37/Ton, ranging from a low of $19.25/Ton (MN) in September, to a high of $47.40 in May.

It is observed that patented process CRM HMA averaged $44.81/Ton while CRM HMA produced by an unpatented process averaged $48.35.

Overall, the average cost of CRM HMA, ignoring process, was $47.80, and for conventional HMA $28.60. Thus, average cost of CRM HMA for these 66 actual projects over the period January through September, 1993, was about 67 percent more than the average cost of conventional HMA projects.

TABLE A

AASHTO CRM HMA COST SURVEY, SUMMARY OF RESULTS
SEPTEMBER, 1993

Month	State	# of Projects	Ave. tons per Project	Ave. $/ton No Patent	Ave. $/ton Patented	Ave. $/ton
Conventional						
January	CA	1	26,500	41.25		
February	OH	1	4,288	30.00		19.63
	MD	1	2,200	64.46		22.05
	CA	2	19,400	45.60		29.50
March	AR	1	12,571	40.89		28.00
	PA	1	4,963	30.15		
	CA	2	5,800	59.50		40.75
	NM	1	30,000	48.40		

AASHTO CRM HMA 1993 Cost Survey
September 24, 1993
Page 3

April	AK	1	9,270	60.72		46.30
	NC	1	3,335	48.23		26.94
	NY	1	8,820	52.00		23.00
	CA	3	24,800	42.47		31.47
	NM	1	6,416	80.00		
May	IA	1	10,950	36.16		22.50
	TN	1	9,000	30.56		24.42
	PA	2	3,000	36.23		31.00
	OR	1	10,900	34.06		25.59
	CA	2	4,700	64.38		47.40
June	TX	1	26,007	58.92		31.30
	MT	1	8,200		37.80	18.59
	PA	4	13,221	34.11		28.05
	KS	3	69,639	31.93	35.38	28.63
	OR	1	4,350	33.03		28.50
	CA	5	14,100	53.08		39.60
	SC	1	1,848	72.23		23.98
July	TX	1	18,417	48.75		32.05
	AL	1	1,296	96.07		31.96
	MT	1	82,880		42.30	20.06
	TN	2	11,000	41.98		22.61
	OH	1	6,090		52.25	24.60
	VA	1	5000/5000	51.50	51.50	28.10
	IL	2	3,670	40.82		32.30
	KY	1	3,200	46.26		23.88
	CA	5	42,700	47.80		33.80
August	FL	1	4,397	71.64		31.15
	AL	1	1,340	63.00		40.00
	CA	4	26,900	41.56		25.67
	NV	1	2,600		36.00	23.00
September	AK	1	3,700	74.00		32.00
	MN	1	3,500	33.30		19.25
	MI	1	3,600	33.99	38.49	24.61
	SD	1	1,100	32.00		20.50

SPECIAL NOTES

38 states responded to the survey, of which 13 reported that they have not yet undertaken a CRM HMA project in 1993. A total of 66 projects were reported.

Michigan reported that they received a special price discount for their CRM pavement.

California and Nevada reported that they reduce the thicknesses for their CRM pavements.

Virginia bid one contract that contained both a patented and a non-patented process and received one identical per ton price for both processes.

All averages reported are on a per project basis.

EXHIBIT C

As Approved by the AASHTO Board of
Directors on October 24, 1993

POLICY RESOLUTION PR-18-93

Title: Review and Modification of ISTEA Provision
Regarding Utilization of Recycled Rubber in Asphalt Pavement

WHEREAS, Section 1038(d) of the Intermodal Surface Transportation Efficiency Act of 1991 establishes that each state shall utilize asphalt pavement containing recycled rubber in specified minimum amounts, beginning in 1994, and

WHEREAS, the American Association of State Highway and Transportation Officials (AASHTO) has previously advised Federal officials, through Policy Resolution PR-15-92, that any requirement for minimum utilization of recycled rubber in highway and transportation programs should allow credit for all potential transportation related applications of recycled rubber, not just application in asphalt pavement, and

WHEREAS, since adoption of PR-15-92 by AASHTO on October 4, 1992, many states have individually or collectively raised substantial concerns with Section 1038(d) of ISTEA, including, but not limited to

* concern that it is likely to substantially increase the cost of asphalt pavement projects and therefore reduce the services which transportation officials can provide within a given budget (at a time when budgets have already been cut);

* continued concern that Section 1038(d) may not be susceptible of administration which allows credit towards minimum utilization requirements for uses other than in asphalt pavement for new construction and reconstruction, thereby denying credit for uses in and outside of transportation programs and even denying credit for pavement uses in repair and maintenance paving;

* concern that the level of penalties called for by Section 1038(d) for failure to meet minimum utilization requirements for recycled rubber by even small amounts, are extraordinary severe and totally inappropriate and that implementation even of a reduced level of penalties would be contrary to longstanding AASHTO policy in opposition to provisions in transportation program which impose sanctions on states for not taking specified actions;

* concern that some states could not readily meet target levels for utilization of crumb rubber due to lack of supply of material within the state, which could necessitate importation of used tires into a state at high cost; and

- continued concern that there are technical, environmental, and health questions associated with use of pavement containing recycled rubber, and

WHEREAS, apparently in part as a result of the expression of such concern by states, the Congress of the United States has now passed legislation delaying the effective date of Section 1038(d) by one year and has expressed a desire to study concerns regarding Section 1038(d) prior to expiration of that one year period.

NOW, THEREFORE BE IT RESOLVED by the Board of Directors of the American Association of State Highway and Transportation Officials that AASHTO commends the Congress for delaying the implementation of Section 1038(d) and for expressing a desire to study the provision's implications before it takes effects; and

BE IT FURTHER RESOLVED that AASHTO is committed to working with the Congress, the Department of Transportation and any other Government agencies to ensure that information is provided promptly to the Congress, so that Congress can have data to help it formulate needed modifications to Section 1038(d) before it is allowed to take effect; and

BE IT FURTHER RESOLVED that AASHTO opposes allowing Section 1038(d) to take effect in its present form and recommends that it be totally repealed; however, if the provision is allowed to take effect, Congress should first modify it and that modifications which should be considered include:

- allowing credit towards any utilization requirements for a full range of uses of recycled rubber;
- converting the provision to an incentive program from a sanction provision or, in the alternative, greatly reducing sanctions;
- allowing waivers or reducing minimum utilization targets if the cost of utilizing the material is significant, including consideration of waivers for states which would have to import recycled rubber; and
- delaying the effective date of the provision.

BE IT FURTHER RESOLVED that a copy of this resolution be promptly provided to appropriate members of the Congress and to the Secretary of Transportation and the Federal Highway Administrator.

STATEMENT OF

DAVID J. DEBOER
VICE PRESIDENT
GREENBRIER INTERMODAL

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION

HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

ON

THE PROPOSED NATIONAL HIGHWAY SYSTEM

March 3, 1994

INTERMODAL ASSOCIATION OF NORTH AMERICA
6410 KENILWORTH AVENUE, SUITE 108
RIVERDALE, MARYLAND 20737
(301) 864-2661

Mr. Chairman, distinguished members of the subcommittee, I appreciate this opportunity to appear before you today to share the views of the Intermodal Association of North America, or IANA, on the proposed National Highway System (NHS) recently submitted to the Congress by the Clinton Administration.

My name is David J. DeBoer. I am vice president of the Greenbrier Intermodal, based in San Francisco. I am here today as a member of the IANA's Board of Directors representing the association at these important hearings.

The IANA is North America's leading industry trade association representing the combined interests of all types of intermodal freight transportation companies and their suppliers. Our members include railroads, steamship lines and their stacktrain affiliates, intermodal truck operators and over-the-road highway carriers, and intermodal marketing companies. IANA members transport the bulk of the nation's intermodal freight shipments both domestically and internationally throughout North America.

At the outset, I want to commend the Congress for its vision and leadership in enacting the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and creating, for the first time in this country, a governmental template for looking at our transportation resources and needs in a systematic way.

The ISTEA set us on a new path in dealing with our transportation system and challenged all of us to take off our blinders and see the nation's transport needs in a different light.

The ISTEA was a good first step and we would implore the Congress to assure that we attain the vision of this legislation by reenforcing its commitment to an intermodal approach to achieving our vital infrastructure objectives. We look forward to working with the Congress in achieving this goal.

The freight transportation industry has been in the vanguard of intermodalism for more than thirty years. During that time, and particularly within the last decade, intermodal

advocates have worked hard to build a system which takes advantage of the latest surface transportation technology — whether steamship, rail or truck — to meet the needs of the nation's shippers and receivers moving approximately 100 million containers and trailers.

Advancements in intermodal operations, particularly following deregulation more than a decade ago, have allowed us to build a national freight transportation network that is the most efficient and customer-responsive in the world. The value added by our freight transportation network has allowed U.S. producers to compete effectively in the burgeoning global marketplace.

In my remarks today, I want to focus on several issues related to the proposed NHS and the future funding of transportation projects which are critical to the continued growth of freight intermodalism. These issues relate to the identification of intermodal connectors, funding of intermodal infrastructure projects, and the need for flexibility in the system adopted by the Congress.

Transportation and logistics expenditures in the U.S. account for 16.8 percent of the nation's gross domestic product.[1] Consequently, the potential for freight transportation technological advancements and operating efficiencies to have a significant bottom line impact are self-evident.

The freight transportation success story of the last decade has been the growth of intermodalism. In the last ten years, the number of loaded trailers and containers transported by the nation's railroads have more than doubled — breaking the seven million barrier for the first time in 1993.[2] The growth in intermodal loadings has averaged between five and seven percent annually since the early 1980s, and so far in 1994, loadings are up nine percent over last year.[3]

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[1] Transportation in America, Eno Transportation Foundation, Inc., 11th edition, 1993.

[2] Association of American Railroads

[3] Ibid

Mr. Chairman, these numbers only tell part of the intermodal story. Further data on shippers' increased reliance on freight intermodal service in meeting their logistics and distribution requirements is detailed in the latest edition of the so-called Intermodal Index. This index involves an annual survey of traffic and distribution center executives concerning their future transportation plans. It is conducted by Mercer Management Consulting on behalf of the IANA and the National Industrial Transportation League.

I request that the 1993 Index be made part of the record of these hearings.

The intermodal traffic statistics I mentioned earlier are significant because trailers and containers moved by rail reduce highway congestion as well as wear and tear, save fuel, and contribute to cleaner air. Additionally, the economics associated with the rail transport of freight trailers and containers results in a lower delivered price of U.S. goods, keeping U.S. producers competitive in domestic markets and abroad.

The NHS adopted by the Congress should recognize the advances in freight intermodalism and foster its continued growth into the 21st century.

Critical to the continued growth of freight intermodalism is the inclusion in the NHS of the important streets, arterials, and roadways serving rail and port intermodal facilities.

Many of the nation's ports and rail intermodal facilities are in older areas of our cities. The drayage operators, or motor carriers, who pick up and deliver freight trailers and/or containers to these facilities must use these connectors in the normal course of their activities. Consequently, in some cities thousands of trucks weekly use local roadways to obtain access to what in the future critically need to be designated portions of the NHS.

The state and urban NHS maps submitted by the states to the U.S. Department of Transportation (DOT) only partially identified the major intermodal facilities and the roadways serving them. There were several reasons for this, including the fact that, in many cases, states and metropolitan planning organizations (MPOs) are just beginning to come to terms with their new freight responsibilities.

Indeed, the IANA and other freight transportation groups also have been helping our members get up the learning curve on the new planning and funding procedures. So freight industry involvement in the MPO process in many areas is just beginning to hit full stride.

Consequently, the DOT has developed an "illustrative" list of such major intermodal facilities. However, little has been achieved in identifying the critical local connectors which provide access to these facilities.

In its proposed legislation, the DOT recommends to the Congress language which would provide that within two years after enactment of the NHS, the States, in cooperation with the MPOs and private sector interests, complete the identification of major appropriate connectors to the NHS, using criteria to be established by the Secretary of Transportation.

While the IANA supports the need for additional time to establish a criteria and identify major intermodal facilities and connectors for inclusion in the NHS, we are concerned that the two-year time period following enactment of NHS legislation unduly delays the NHS designation for these important facilities and connectors.

Our primary concern is that the two-year timetable will take such facilities out of the loop for possible infrastructure investment until later appropriations cycles, thereby jeopardizing efforts to achieve greater operating efficiencies in support of the NHS and the overall objectives of the ISTEA.

The IANA would recommend a shorter time line of one year for identifying and designating major intermodal facilities and connectors as part of the NHS. Given the higher consciousness level that all parties have today regarding the important role of intermodal facilities and connectors, this process, we believe, should be expedited, once the DOT has published its selection criteria.

While the ISTEA was critical in advancing an intermodal approach to infrastructure funding, limitations and/or uncertainty in the language of the statute has prevented the investment of funds in certain freight intermodal projects that could lead to greater operating

efficiency at relatively low cost.

In adopting the NHS and acting on ancillary issues relating to highway and transit programs, we would urge the Congress to assure that the authority to finance freight-related projects on public land to facilitate greater intermodal connectivity is allowed.

In his comments at the unveiling of the proposed National Highway System last December in Washington's Union Station, Federal Highway Administrator Rodney Slater explained that, "Like so much that is important about ISTEA, the National Highway System is a flexible concept."

Indeed, flexibility should be the hallmark of the NHS. The Congress should avoid adopting a static NHS. Accordingly, we urge the adoption of that provision of the DOT's legislation that would give the agency, states, and MPOs flexibility to modify portions of the NHS to meet changing circumstances.

The shifting of this nation's manufacturing base during the last fifteen years and the growth of small entrepreneurial enterprises that are producing goods for sale in global marketplace give testimony to the need for flexibility in designating, planning, and building or upgrading our major infrastructure projects.

Finally on the ISTEA, the Congress should act to assure that the vision of this landmark legislation is carried out. But in doing so, it must assure that the planning and financing activities of the MPOs consider the needs of U.S. manufacturers in moving their products to market both here and abroad.

While most of the infrastructure decision making will be done locally, there is an ongoing need to view our freight transportation infrastructure in a systematic way — assuring the most efficient nationwide freight network.

To assure that the MPOs are cognizant of the transportation network consequences of their local planning efforts, we believe there is a need for continuing DOT oversight of such activities. In this age of increasing global competition, the transportation component of the

delivered cost of U.S. goods often can make or break a market for American producers. We should ensure that in our local planning activities barriers to greater freight transportation efficiency are not inadvertently created.

We urge the Congress to enact legislation that adopts a National Highway System that promotes economic growth, operating efficiency, and funding flexibility in meeting the country's evolving infrastructure needs.

Thank you.

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BEFORE THE

UNITED STATES HOUSE OF REPRESENTATIVES
SURFACE TRANSPORTATION SUBCOMMITTEE OF THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

March 3, 1994
Washington, DC

Statement of the

AMERICAN TRUCKING ASSOCIATIONS, INC.

On

DESIGNATION OF THE NATIONAL HIGHWAY SYSTEM UNDER TITLE I OF THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

Thomas J. Donohue
President and Chief Executive Officer

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I. INTRODUCTION

A. ATA Represents the Trucking Industry

I am Thomas J. Donohue, President and Chief Executive Officer for the American Trucking Associations (ATA), the national trade association of the trucking industry. The ATA federation includes over 4,100 carriers, affiliated associations in every state, and 11 conferences. Together, ATA represents every type and class of motor carrier in the country. Combined with ATA's direct membership, we are a federation of over 40,000 member trucking companies.

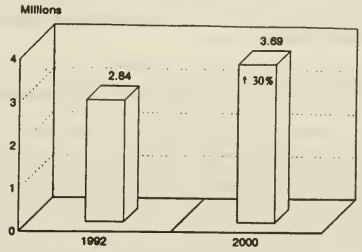
Thank you for scheduling these hearings on the designation and adoption of the National Highway System (NHS). As you know, the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991, and the 1992 presidential election, together stimulated a great deal of debate on our nation's physical infrastructure, placing an especially strong emphasis on our transportation system. National policies were advocated to better maintain, restore, rebuild, and re-invest in all transportation facilities. This "rebuilding" of America is the first step in the nation's goal to revitalize the economy. This is a jobs program with far-reaching strategic returns. As a major component of our infrastructure, highways account for the largest modal share of this investment - about $1 trillion of our total investment of $1.4 trillion. The NHS represents the most critical of these roads. The trucking industry has a direct stake in this national, strategic system of roads.

B. The Trucking Industry Serves America

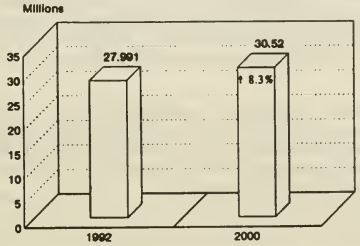
Trucking is the nation's largest freight transportation mode. The trucking industry employs 7.8 million people throughout the economy in jobs that relate to trucking activity - more than the separate populations of 42 of our 50 states. We have gross freight revenues equal to over 5% of the Gross Domestic Product -- a total of $350 billion in 1993. Trucks haul over 77% of all manufactured goods and transport 43% of total tonnage shipped by all modes - 2.9 billion tons of freight annually.

Based on preliminary projections, we anticipate that by the year 2000, domestic freight tonnage will increase 30%. Between 1992 and 2000, the number of freight trucks (classes 6, 7 & 8) needed to haul it will climb 8.3%, to 3 million, and the miles these vehicles will be required to travel to deliver this freight will increase 31%. And all of this is if economic growth is at a conservative 2.8% per year. (See charts below)

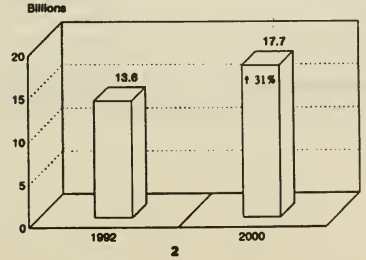
Freight Tonnage



Number of Trucks



Total Annual Truck Miles



Considering these figures, it becomes apparent that we need to insure that there is a highway system which will provide the capacity and connectivity to meet the increased demands safely and efficiently. Without investment in such a system, we will have our economic growth constrained and lose factories, jobs, and economic strength. In short, we need investment in a National Highway System.

C. ATA Seeks a Complete and Unified System with the NHS as the Backbone

The trucking industry seeks a unified, well-connected system which promotes the efficient movement of goods and people. ISTEA recognized the importance of using all modes to achieve this efficiency, and rightly so. However, as acknowledged by the Federal Highway Administration in its report to Congress, the National Highway System will serve as the 159,000-mile backbone of a national intermodal transportation network. The NHS addresses the problem of movement within cities - a fact recognized in that 25% of all NHS miles are within urban areas. Just as important, the cities must be linked together and bound to our rural and suburban areas by a system of modern, well-maintained roads, highways and bridges.

Presently, 60% of U.S. households are within five miles of an Interstate highway. However, 90% of all households will be that close to an NHS route. That will bring quality highway service to an additional 72 million Americans. Likewise, 95% of U.S. businesses will be within five miles of an NHS route, compared to 70% that are that close to an Interstate today.

The National Highway System is not a road building program - it emphasizes the maintenance, preservation and improvement of 159,000 miles of roads deemed the most critical to meeting America's future needs. In fact, the NHS includes only 4% of the country's 3.9 million miles of public roads. Of the 159,000 miles on the system, less than 2% will involve totally new routes. (See table below)

NHS HIGHWAY STATISTICS

• TOTAL PUBLIC ROAD MILEAGE	3.9 MILLION MILES
• NHS MILEAGE	159,000 MILES
• % OF TOTAL SYSTEM	4%
• % OF FREIGHT CARRIED ON NHS	75%
• % TOTAL VMT ON NHS	40%
• % NHS WHICH IS NEW CONSTRUCTION	LESS THAN 2%

II. FULL FUNDING OF THE NHS

A. Achieving the Goals of the NHS

According to the 1993 Conditions and Performance Report, prepared by the FHWA, the average annual cost to maintain existing highways through 2011 is estimated at $46.4 billion. The cost to maintain overall bridge conditions as they were reported on June 30, 1992 is estimated at $5.2 billion annually through 2011.

The costs are staggering, and with existing resource constraints, policies and projects must be carefully selected so that they result in the greatest possible efficiency gains. In the creation of ISTEA, Congress anticipated this and created the framework for a National Highway System and specified its purpose. The NHS is precisely the type of strategic investment warranted in the current funding climate. Though it consists of only **4%** of the nation's road miles, it will carry **40%** of all highway traffic, and **75%** of all highway freight movements. Even so, authorized levels for Title I have not been matched by recent appropriations:

TITLE I SURFACE TRANSPORTATION

	Authorized	Appropriated
1992	$18.6 billion	$16.0 billion
1993	$20.5 billion	$15.3 billion
1994	$20.4 billion	$19.9 billion

These significant discrepancies between authorizations and appropriations have led to the underfunding of infrastructure projects and to the destructive competition for funds. This only serves to skew transportation priorities to the detriment of the nation's road system.

B. Meeting Needs

Although ISTEA was passed in a period of severe budget constraints and concerns about growth in the federal budget deficit, the worthy goals of the National Highway System, and the ensuing benefits it will provide to our economy, can only be realized if appropriations match authorizations. In sum, the NHS represents not a yearly expenditure on highways - it represents an average **$6.5 billion/year smart strategic investment** in the nation's long-term strategy of sustained economic growth.

III. THE BENEFITS OF A NATIONAL HIGHWAY SYSTEM

A. Providing Jobs

"The long term economic returns from a national system such as the NHS are very high, and probably not achievable through a series of localized investments." This statement comes from a study performed by Apogee Research, Inc., of Bethesda, titled, The Economic Importance Of The National Highway System, With Case Study Examples. This study does more than just list the benefits of the NHS. It gives us tangible evidence of the need for good highways by describing the operations and needs of five U.S companies, all leaders in their fields, and together having locations in every state in the country. They represent every facet of the product chain, from manufacturer, distributor, to the retail outlet. And, they all employ the latest advances in transportation logistics, including "Just In Time" (JIT) manufacturing processes and "Rolling Stock" inventory management. These techniques reduce company inventory costs and help improve the productivity of U.S. industry.

Although the products they manufacture and ship are quite different from one another, each company reports a common need and reliance upon an exceptional highway network. In fact, each company links its present and future success to the existence of such a system. We have provided a copy of the study to each member of the subcommittee, but let me summarize the findings by company.

Campbell Soup Company depends on a good network of arterial highways and Interstates to achieve reliable JIT delivery of its food products and to support strategic alliances with its suppliers.

Hewlett Packard Company needs the flexibility provided by our highway system to move products reliably and efficiently.

The Limited efficiently stocks a nationwide network of 4,425 retail clothing stores in 48 states from a centralized distribution center in Columbus, Ohio, almost entirely by use of reliable long-distance trucking.

Saturn Corporation competes successfully against foreign manufacturers of small cars by employing JIT manufacturing processes made possible by an effective, nationwide highway system.

Xerox Corporation depends on an efficient highway system to reduce order cycle times and reduce inventory costs, which makes its products more competitive in all markets.

Together these companies, that depend on the presence of an exceptional highway system, employ *351,000 people* and had 1993 combined earnings of *$45.3 billion*. And these are only the indirect benefits of a National Highway System.

Every additional $1 billion invested in our nation's highway infrastructure generates an estimated additional output of goods and services of about $2.43 billion. Of this, $1 billion is the value of the actual highway construction, but the rest, $1.43 billion, is the value of the output of goods and services required to support the investment in infrastructure. For every $1 billion invested in highways, we create 24,300 additional jobs. Some of these people are directly employed in the construction of the infrastructure, about 10,640 persons. On average, however, for every 100 workers employed in infrastructure improvement, about 128 jobs are created elsewhere in the economy. (Highway Construction: Its Impact on the Economy: Congressional Research Service, The Library of Congress, #93-21E, January 6, 1993.) Expanding this relationship to our total federal investment in the NHS from 1995 to 1997 at authorized levels for the NHS and Interstate maintenance translates into close to **500,000** jobs. (See table below)

IMPACT OF $21 BILLION INVESTMENT IN NHS INFRASTRUCTURE

500,000 ADDITIONAL JOBS

EACH PERSON REPRESENTS
20,000 JOBS

$51 BILLION ADDITIONAL OUTPUT

$$$$$$$$$$
$$$$$$$$$$
$$$$$$

EACH $ REPRESENTS
$2 BILLION OF ADDITIONAL
GOODS AND SERVICES
RETURNED TO THE ECONOMY

6

Smart investment in our nation's transportation infrastructure not only serves the domestic interests of America - it provides a broad range of economic productivity and growth benefits on an international scale as well.

B. Promoting International Competitiveness

The National Highway System responds to the reality that American economic growth increasingly depends on how well we fare against our competitors in the world economy.

An efficient and well-connected interstate system is essential to survive and prosper in our 21st century fast-paced global economy. A transportation system must allow flexibility. The NHS will. Fast and efficient movement of freight is now critical to the success of "Just in Time" manufacturing processes and rolling stock programs mentioned above. The NHS will reduce U.S. transportation logistics costs, making American goods more competitive at home and abroad.

The NHS will provide for reliable transport of goods and people among all points - from the supplier to the final market. The reliability of the transportation system is a key performance factor in a firm's decision to site a major new facility, or a large job provider's decision to leave.

The focused investment in a National Highway System, just **4%** of all the roads in the country, in sum, will help secure and protect America's place in the global economy.

C. Promoting Increased Highway Safety

The value of a transportation system of any kind is severely reduced if it cannot be used safely. It must be designed not only with efficiency in mind, but with operational safety designed into it as well.

Increased safety is an important factor in the designation of the NHS. National Highway System routes will have high quality design features to provide maximum safety, thereby reducing accidents. In 1992 alone, there were **39,325** highway fatalities, representing a **$27.5 billion** economic loss, not including injuries and property damage.

While only **11%** of these fatalities involved a truck, the new National Highway System will help us to meet our national goal of reducing the overall highway fatality rate by **7%** annually by:

Relieving congestion at bottlenecks - increasing capacity at these hazardous points reduces congestion, which reduces accidents.

Improving sight distances and lane widths - FHWA research has shown that longer sight distances and 12 feet lane widths better accommodate vehicles, allowing for safer operation. In fact, widening a lane by just two feet would reduce accidents by 23 percent (USDOT Publication No. FHWA-PD-94-002).

Controlled Access Intersections - these help to facilitate traffic flow and mitigate congestion, minimizing accident exposure.

Because of the huge unmet needs on the NHS, ATA is actively working at the state and local level to insure that NHS funds are being used to meet critical highway needs and not being diverted to other types of projects.

D. Promoting Technology and Improving the Environment

The National Highway System will help advance U.S. transportation technology and expertise, making our transportation system not only more efficient and competitive internationally, but further reducing its impact on the environment.

The federal government now spends more than $145 million annually developing Intelligent Vehicle and Highway System (IVHS) technologies that will move people and goods more safely and efficiently. Many of these new technologies are built right into the existing highway. In urban areas where these new practices will improve traffic flow, tailpipe emissions of carbon dioxide and hydrocarbons can be reduced by as much as 30% compared to stop-and-go congestion, thereby helping to clear the air. The relatively small but significant NHS is the perfect proving ground for IVHS technology.

This also supports one of Secretary Peña's seven strategic goals for USDOT: "To create a new alliance between the Nation's transportation and technology industries, to make them both more efficient and internationally competitive."

We all want to balance what is good for our economy and communities with what preserves and enhances our environment. ISTEA is the first such transportation program to tie together these two ideals, and realizes that they need not compete, but actually can and should compliment each other.

E. Tieing America Together

The NHS will provide access for more Americans in more communities to the expanding economic opportunities available from our global economy.

With safety upgrades, technology improvements, and enhanced design features, NHS routes will make it easier for people to get to and from work, the doctor's office, and the

grocery store. It will help move food and raw materials from rural America to the cities and ports. It will help to sustain a valued way of life for millions. The NHS will also include routes serving national parks and other major travel destinations, so American and foreign tourists can expect traffic flow and safety improvements on the highways they use.

IV. CONCLUSION

A. Act Quickly

On December 9, 1993, the United States Department of Transportation transmitted to Congress a 159,000 mile proposed National Highway System identifying 104 port facilities, 143 airports, 191 rail-truck terminals, 321 Amtrak stations and 319 transit terminals. ISTEA requires that the NHS and Interstate Maintenance funds not be released to the states if the system is not approved by Congress by September 30, 1995.

We urge Congress to quickly approve the NHS this year and remove the uncertainty associated with the timing of the National Highway System. The sooner the NHS is approved, the sooner we can target federal funds to the roads that are necessary for jobs, economic growth, mobility, and safety.

B. Remain Focused

One good way to promote quick passage of the NHS is to remain focused on the need for a National Highway System and not allow side issues to detract from that goal.

We urge Congress to avoid policy changes such as expanding eligibility for NHS funding, or suballocating the funds to local jurisdictions. Expanding eligibility, to privately owned facilities for example, will delay the process by introducing yet another element into the planning process. Given the significant unmet needs of the NHS and requirements to look to the weak links of the NHS on a system-wide basis, we should keep the statute the way that it is.

C. Failure to Adopt The NHS - America's Economic Future

The Eisenhower Interstate System gave us a highway system better than any in the world. It was greatly responsible for the advantage we had over our competitors in the global marketplace. The NHS, the backbone of America's transportation system, is must-pass legislation *needed now* if we expect to preserve the economic leadership we have enjoyed for the last forty years.

If we do not invest in a National Highway System, several things will happen. Without it, economic growth will be limited, and jobs lost.

Jobs will also flow from the middle of the country to the periphery, such as around our ports. Without a seamless, well-connected highway system, it will be too expensive to locate factories in rural areas and so the 72 million Americans living in rural areas will have reduced job opportunities.

We won't capture the savings from safety improvements, and will lose thousands of lives unnecessarily, and the billions of dollars in future productivity and property losses that go with those lives.

In sum, NHS is not about trucking. It is about our communities and the nation. It is about mobility. It is about moving goods and people in the most efficient manner possible. It is about investing scarce resources wisely, strategically, and for the future. It is about making jobs. It is about whether we want economic growth or not. In short, the NHS *is* the highway system which will take America into the 21st century.

Thank you for the opportunity to testify.

THE ECONOMIC IMPORTANCE OF THE NATIONAL HIGHWAY SYSTEM

WITH CASE STUDY EXAMPLES

Prepared For:

TRUCKING RESEARCH INSTITUTE
Alexandria, VA

Prepared By:

APOGEE RESEARCH, INC.
4350 East-West Highway, Suite 600
Bethesda, MD 20814

February 1994

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PREFACE

The continued prosperity and growth of the United States depends to a large extent on a strong, well developed national highway and transportation network. The National Highway System (NHS), as proposed by the Secretary of Transportation in December 1993, represents a connected network of the nation's most important roadways. Upon approval by the Congress, this highway system will truly become the backbone of the nation's transportation network for the 21st century.

The Economic Importance of the National Highway System: With Case Study Examples, was commissioned by the Trucking Research Institute (TRI), an ATA Foundation subsidiary, in September 1993 to raise the level of public discourse on the economic benefits to be expected from the creation of, and investments in, the National Highway System. The study was conducted for TRI by Apogee Research, Inc., a transportation and environmental consulting firm specializing in economics, finance, and policy.

Since its establishment in 1986, TRI has conducted nearly 30 studies on a wide range of topics affecting the U.S. trucking industry. TRI is a non-profit charitable trust organization recognized under section 501(c)(3) of the Internal Revenue Code.

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EXECUTIVE SUMMARY

The National Highway System (NHS), once approved by Congress, will provide the natural continuation into the 21st Century of a highway network that has made U.S. mobility and logistics the envy of the world. In proposing the NHS recommendations in December, the Secretary of Transportation stressed its primary purpose -- to focus Federal attention and funding on the most strategic four percent of our nation's roads.

The long-term economic returns from a national system such as the NHS are very high, and probably not achievable through a series of localized investments. Recent economic studies consistently find a strong positive link between transport investment and economic growth. Most importantly, the magnitude of this linkage increases several fold when the impact of these investments are viewed from a national scale. Our case studies examining the views of private firms also confirm the strong economic value of such a national system.

In sum, a coordinated and comprehensive National Highway System is an essential part of the nation's long-term strategy of economic growth, just as the Interstate Highway System was when adopted in 1956. Because it is national and regional in scope, the NHS is unique in its ability to generate two major economic benefit streams:

(1) **Transportation Network Benefits** -- the NHS will provide the framework for a sound, effective transportation network serving the entire country.

- The NHS preserves and supports existing routes that underpin our intermodal network nationwide, keeping distribution costs low.

- NHS approval is needed to sustain existing highway conditions in the face of long-term growth in vehicle miles of travel.

(2) **Economic Productivity and Growth Benefits** -- implementation of the NHS will provide a broad range of economic productivity and growth benefits.

- Logistical benefits of the NHS, such as inventory shrinkage and ability to apply just-in-time production techniques, will spread far beyond direct transportation gains.
- Improved/reliable access to labor and supplier markets permits more flexible adjustment to changing market conditions.
- Productivity benefits permit cost reductions and quality improvements, boosting the nation's ability to compete worldwide.
- The nationwide NHS network provides mobility and access, permitting business opportunities and jobs to take place anywhere.

Case Study Examples

Five leading U.S. companies, reflecting a cross-section of commercial activity, have provided information for case studies of the importance of a high-quality national highway network for their distribution systems and for their economic efficiency in general. A few highlights from these major users of the highway system follow:

- **Campbell Soup Company** depends on a good network of arterial highways as well as the Interstates to achieve reliable just-in-time delivery of its food products and support strategic alliances with suppliers. Campbell's lower production costs and access to fresher ingredients are made possible by reliable highway linkage to their suppliers.

- **Hewlett-Packard (HP) Company** maintains their competitive position in the hotly contested electronic products and systems markets by reducing order cycle times for HP products and using more frequent shipments of smaller size. The transport flexibility provided by the nation's highway system and good road access to airports is vital to move HP products to the customer quickly and reliably.

- **The Limited, Inc.**, efficiently stocks a nationwide network of 4,425 retail clothing stores in all 48 contiguous states from a centralized distribution point in Columbus, Ohio, almost entirely by use of reliable long-distance trucking over the nation's highway system.

- **Saturn Corporation** is using a dedicated truck transportation system to maximize the benefits of just-in-time deliveries of inventory for its integrated manufacturing process. An efficient, effective nationwide highway system plays a key role in Saturn's mission to compete successfully with foreign car manufacturers in the small-car market.

- **Xerox Corporation** has achieved greater efficiency and cost savings in the distribution of finished Xerox office products by hubbing Xerox's transportation operations using the nation's highway system. A reliable nationwide highway system also provides essential support for on-time delivery of components for the manufacture of Xerox products and has helped the company reduce component order cycle times and inventory costs.

THE ECONOMIC IMPORTANCE OF THE NATIONAL HIGHWAY SYSTEM

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) authorizes federal funding for highways for the six-year period from FY 1992-1997. A major provision of ISTEA is establishment of a National Highway System (NHS) intended to focus Federal resources on roads that are most important for interstate travel and national defense, roads that connect with other modes of transportation, and roads deemed essential for international commerce.

The long-term economic returns from such a national system are very high and probably not achievable through a series of localized investments. Recent economic studies are consistent in finding a strong positive link between transport investment and economic growth. Most importantly, the magnitude of this linkage increases several fold when investments are viewed at a national scale. Case studies of private firms reported here strongly confirm the economic value of such a national system.

WHAT IS THE NHS?

The NHS, as proposed by the Secretary of Transportation in December 1993, represents a connected network of the nation's most important roadways. The NHS will provide the principal highway portion of the national transportation system as the U.S. enters the 21st century. In ISTEA, the Congress stated its purpose as follows:

> The purpose of the National Highway System is to provide an interconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and other major transportation destinations; meet national defense requirements; and serve interstate and interregional travel. (Section 1006)

The ISTEA statute directed that the NHS shall not exceed 155,000 miles (plus or minus 15 percent) of highways in the United States and shall consist of:

- Highways designated as part of the Interstate Highway System;

- Other urban and rural principal arterials and highways (including toll facilities) which provide access to major ports, airports, public transportation facilities, or other intermodal transportation facilities;

- The Strategic Highway Network (STRAHNET) -- a network of highways (on and off the Interstate System) which are important to the U.S. strategic defense policy and which provide defense access, continuity, and emergency capabilities;

- Major STRAHNET connectors -- highways that provide motor vehicle access between major military installations and the strategic highway network; and

- Congressionally-designated high-priority corridors specified by ISTEA.

TRANSPORTATION AND THE ECONOMY

The role of transportation in shaping economic activity has long been a topic of study. Most analyses show two important findings: (a) there is a significant positive linkage between transportation investments and growth in overall economic activity; and (b) the analytic techniques were generally applied to relatively small geographic segments.[1] Because most of these studies focus on local investments, they are of limited use in analyzing the value of regional or national networks. As a result, these analyses show positive impacts but tend to underestimate the magnitude of long-term economic gains.

Recent research approaches have combined a broader macroeconomic view along with different mathematical techniques. Taking this approach shows a much greater scale and range of benefits than indicated by analyses of individual segments. Most importantly, these macroeconomic studies recognize transportation service as a key input into overall economic production, alongside labor, private capital, and raw materials.

[1] See the Federal Highway Administration's report, ***Current Literature on Highway Investment and Economic Development*** (1989), prepared by Apogee Research, Inc., for a review of 84 applied studies on the role of highway investment.

While several researchers have been involved, the two best known are Dr. David A. Aschauer and Dr. Alicia H. Munnell. Dr. Aschauer is a Professor of Economics at Bates College and began his work on these issues while with the Federal Reserve Bank of Chicago. In 1991, the Transportation Research Board recognized the significance of this work by awarding Dr. Aschauer the Roy Crum Award for the most significant new research in transportation.[2]

Dr. Munnell's work was completed while she was Director of Research at the Federal Reserve Bank of Boston, though she now serves as Assistant Secretary for Policy, U.S. Department of the Treasury.[3] The Aschauer and Munnell analyses use what economists term a production function approach. Similar results have been found by Professor Ishaq Nadiri of New York University using a separate cost function approach.[4] While the precise mathematical results vary, these studies generally find:

- Very large national economic returns to investment in transportation[5] -- increases of 60 cents in overall annual output for each dollar of net new investment.

- Returns increase when larger regions are examined -- studies show greater returns to transport investment when national and regional impacts are counted relative to the state or metropolitan findings.

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[2] See, for example, David A. Aschauer, "Is Public Expenditure Productive?" in the ***Journal of Monetary Economics*** (1989), Vol. 23; and "Public Capital, Productivity, and Macroeconomic Performance: A Literature Review," (November 1993), prepared for Apogee Research and the U.S. Army Corps of Engineers.

[3] See, for example, Alicia H. Munnell, "How Does Public Infrastructure Affect Regional Economic Performance?" in the ***New England Economic Review***, (January/February 1990); and "Infrastructure and Productivity Growth," Statement before the Committee on Public Works and Transportation, U.S. House of Representatives, February 20, 1991.

[4] See, Professor Ishaq Nadiri, "Infrastructure Capital and Productivity Analysis: Cost and Profit Function Approaches," (October 1993), prepared for Apogee Research and the U.S. Army Corps of Engineers.

[5] See data presented in the Munnell Statement cited above. Most of these efforts focus on public works in general, but highways represent about half of public capital assets.

Research findings, therefore, indicate that rates of return from transportation investments are large and appear to increase in magnitude with the scale of the investment. For example, while transport investments analyzed at the metropolitan level show substantial output increases, state-level returns are two-to-three times the local levels, and national studies show output increases that are again double the state findings. In sum, every one percent increase in public capital applied to transportation will be associated with additions to national output of about 0.3 to 0.4 percent, indicating levels significantly higher than comparable returns to private capital. These larger gains associated with a network effect are not surprising given our experience with economic growth associated with the Interstate Highway System. Also, examining the growth of individual firms in our case studies indicates important economic gains from a quality highway network.

The remainder of this section provides more detail on the types of benefits to be expected from investment in the National Highway System. A final section presents five case studies that provide "real world" evidence of how individual firms gain from these benefits.

WHY ADOPT THE NHS? BENEFITS TO THE ECONOMY!

The adoption of the proposed NHS is essential and makes sound policy because it supports activities generating two major benefit streams for the economy:

(1) **Transportation Network Benefits** -- the NHS will provide the framework for a sound, effective intermodal transportation network serving the entire country; and

(2) **Economic Productivity and Growth Benefits** -- a broad range of economic productivity and growth benefits will be preserved and enhanced that are only partially reflected in any analysis of the transportation needs served by a NHS.

TRANSPORTATION NETWORK BENEFITS

This subsection identifies in qualitative terms some of the most important transportation network benefits associated with adoption of the NHS proposal.

The NHS proposes only the most important parts of the highway system for special attention

Authorization of the NHS will endorse and make available a relatively stable source of funds to maintain and improve conditions for the pavement, bridges, signage, and other system characteristics of a limited, well-targeted network of roads. The NHS represents only about four percent of the nation's public roadways, but it carries 40 percent of our overall highway traffic (and even higher percentages of rural traffic) and would be used by about 75 percent of our commercial truck traffic. In relative terms, the NHS has clearly singled out the most universally-used segments of our roadway network, where there is a clear national interest in uniform, high-quality, travel conditions.

Many companies depend on a network of high-quality highways for truck transportation of supplies and finished products. For example, The Limited, Inc., stocks a nationwide network of 4,425 stores in all 48 contiguous states from a centralized distribution point in Columbus, Ohio, by trucking over the nation's highway system. The reliability and short transport time achieved by long-distance trucking allows frequent and reliable re-stocking of even remote locations from their centralized distribution point. Xerox Corporation has achieved cost savings in the distribution of finished Xerox products by using the nation's highway system to rely on fewer, more efficient distribution hubs.

The NHS supports highway routes that underpin our intermodal network nationwide

The NHS, simply put, is the backbone of our strategic highway and intermodal network in almost every meaning of the word. These densely utilized road segments provide connectivity within the highway system and access to railroads, airports, transit, ports, and key distribution centers of all modes forming the basis for our intermodal network Access to 32 Canadian border crossings and 21 Mexican crossings is provided via the proposed NHS.

NHS is a preservation program for mobility, not a new construction program

Federal support for physical improvements to the transportation network has traditionally provided a mix of capacity and quality improvements. The NHS, however, is not a new construction program. Less than two percent of the mileage included in the NHS designation will represent new mileage, and any new routes are already approved in existing state plans. Thus, most of the funds will be directed into resurfacing, restoring, rehabilitating, and reconstructing (4-R) the designated routes on the existing Federal-aid system.

State and local governments will have expanded flexibility to fund balanced solutions

Federal funds for the NHS are flexible and will not automatically go into highway projects. ISTEA provides substantial flexibility and choice to state and local governments in the actual application of most Federal-aid funds. State and local governments were given even more authority to determine the best balance of transportation solutions. As a result, ISTEA virtually ensures increased allocation of funds to transit, environmental activities, and a wide range of system enhancements.

NHS is a maintenance policy for continuation of high-quality pavement conditions

Pavement condition as measured by Pavement Serviceability Ratings (PSRs) on the Interstate have stabilized or improved somewhat since 1988, a reversal of declines in the 1970s and early 1980s.[6] As witnessed in the 1970s, the effects of deferred maintenance cumulate quickly and are expensive in time and effort to overcome. Indeed, surfaces in need of rehabilitation work deteriorate at an increasing rate, meaning that continuous maintenance and 4-R efforts are more cost effective than sporadic funding.

Safe, well-maintained highways are important to many U.S. companies. For example, the efficiency and reliability of truck transportation over the Interstate Highway System makes it possible to ship Xerox photocopiers from their headquarters Webster, New York, over long distances yet arriving on-time and in undamaged condition.

[6] Federal Highway Administration, ***Our Nation's Highways: Selected Facts and Figures***.

Highway use continues to expand strongly and warrants focused resources

Predictors of highway use, including motor vehicle registrations, licensed drivers, and vehicle miles travelled (VMT), continue to increase strongly.[7] Facility utilization is gradually increasing, meaning more VMT per lane-mile of roadway, producing more wear and tear and generating an increasing need for 4-R work just to preserve the existing system. Utilization of a fixed asset can only increase so far, without adequate restoration, before quality begins to decline. Deferred maintenance is a costly phenomenon over the long useful lives of our highway facilities.

ECONOMIC PRODUCTIVITY AND GROWTH BENEFITS

This subsection identifies in qualitative terms some of the most important benefits for economic productivity and growth associated with adoption of the NHS proposal.

Direct Transportation Costs

There are numerous direct economic benefits within the highway transportation network that will flow from approval and implementation of the NHS. Preservation of the existing highway network, as incorporated into the NHS, will reduce or at least restrain direct transportation operating costs. Vehicle wear and tear and, of course, tire deterioration rise as road condition deteriorates. Mileage-related costs such as fuel increase with the roughness of the road (lower PSR) as well as the number of speed changes and delays encountered. Time savings from alleviating bottlenecks yield lower travel cost to all users.

Highway facility costs will also be reduced on a life-cycle basis (measuring total cost over time), reflecting another direct benefit of more predictable funding for the NHS. Because the NHS is "backbone" mileage, enjoying heavy use under virtually any scenario, its long-term costs will be reduced by a steady stream of 4-R funding under the NHS authorization. Highway construction costs tend to rise sharply after excessive deferred maintenance has accrued, because more expensive reconstruction becomes necessary.

[7] Federal Highway Administration, ***Highway Statistics, 1992***.

Related Benefits to the Transportation User

Transport costs are just one part of effective logistics, meaning the strategic positioning of a business firm's inputs and outputs. The physical improvements and stability of performance characteristics for the highway network will provide logistical benefits far beyond reductions in direct transportation costs. In fact, transport providers frequently offset the cost savings by expanding the quality of their logistical services, say by holding inventory for their customer.

Reduced (and/or more reliable) transport costs and transit times allow improved inventory control, reduced inventory stocks, and more efficient product distribution. Inventory imposes holding costs and requires space and handling. Inventory shrinkage made possible by an effective NHS will reduce those costs and yield other benefits in turn, such as improved manufacturing quality and better responsiveness to the customer.

Benefits Cascade Throughout the Production Process

Improvements in inventory control and reduced stocks will produce a cascade of benefits throughout the production process.[8] The transportation improvement is most visible and more easily traced, but the related and follow-on benefits are significant. Implementation of the NHS is expected to boost prospects for an effective, reliable highway transportation network, removing a variety of intermodal bottlenecks and commencing the benefits cascade.

Saturn Corporation is using a dedicated truck transportation system to maximize the benefits of just-in-time inventory for its integrated manufacturing process. A good highway network facilitates smaller, more frequent shipments of components arriving just-in-time to meet very precise production schedules, allowing Saturn to reduce order cycle times and inventory costs. For Xerox Corporation, a reliable nationwide highway system provides essential support for on-time delivery of components for manufacturing of Xerox products, also reducing component order cycle times and inventory costs.

[8] For a more complete description of the linkage between this cascade of economic benefits and transportation, see American Association of State Highway and Transportation Officials (AASHTO), ***Transportation: Key to a Better Future***, (December 1990); and Federal Highway Administration, "Case Studies of the Link Between Transportation and Economic Productivity," (January 1991).

Productivity Improves Across the Transport-Using Industries

Productivity improvements mean more and/or better product for the inputs applied. For example, with lower inventories, labor and plant space can be used for more production or retired, yielding higher economic (financial) returns to all factors of production, both capital and labor. These economic returns will flow to both capital and labor, with the beneficiaries determined by their position and flexibility in the market, but the enhanced returns will certainly be shared.

Flexibility provides access to new customers and input markets. As our retail and service sectors grow, flexibility also permits adjustments to more dispersed (and less predictable) retail and service delivery points. An effective highway network also improves access to a broader pool of quality employees. Hewlett-Packard Company, for example, attracts and retains highly skilled, innovative employees in part by locating its facilities in areas where the highway network provides good labor access for short and long-distance commuting from a variety of residential environments. Without broad, cost-effective access, plants and offices cannot easily expand and tap new resources.

Productivity Benefits Spread Backward and Forward to Suppliers and Customers

The beneficial impact of the NHS, rather than adhering to a transportation provider or his customer, is almost certain to be shared throughout the product chain. Users of the product and intermediate processors, rather than, or in addition to, the transport or producer firms, will benefit from improved quality and enhanced price competitiveness, while suppliers will see their business improve (because orders are staged and predictable). The supplier and the manufacturer both have more leeway to offer more attractive prices.

Campbell Soup Company, for example, has improved performance throughout its supply chain and reduced overall production costs by adopting just-in-time deliveries and strategic alliances with suppliers. Campbell depends on a good network of arterial highways as well as the Interstate System to achieve reliable just-in-time delivery and support strategic alliances with suppliers. Campbell attributes lower production costs and access to fresher ingredients to reliable highway linkage to their suppliers.

Competitiveness Improves

When a commercial enterprise is lean and flexible, its competitive position is enhanced. Products and processes can be quickly adjusted as unpredictable market shifts occur and competitive pressures arise from other sectors or overseas. Being lean keeps an enterprise price competitive, and generates more sales. Having access to an effective highway system permits adjustments in products and shorter product-to-market cycles, using the reliable access to a nationwide (or even international) set of suppliers while maintaining predictable delivery times. Quick response to a shifting market and fast product development relying on a changing mix of suppliers are key in international competition.

The nationwide highway system plays a key role in Saturn Corporation's mission to compete successfully with foreign manufacturers in the small-car market. Hewlett-Packard (HP) Company is maintaining their competitive position by reducing order cycle times for HP products. Because this results in more frequent shipments of smaller size, the transport flexibility provided by the nation's highway system and good road access to airports is vital to move HP products.

Economic Growth is Sustained and Expands

Competitive enterprise needs an adequate, effective "system" for access to suppliers, employees, and customers. The NHS, as the backbone of that overall system, will nurture and sustain highly dispersed economic activity, permitting a broad range of locational decisions, avoiding constraints to narrowly focused economic growth. An important feature of the proposed NHS is that the economic growth and returns from enhanced productivity can be spread across a broad spectrum of the country. Enhanced mobility permits growth and change to take place where it is most advantageous, rather than being channeled to only a few locations.

CASE STUDY EXAMPLES

- Campbell Soup Company
- Hewlett-Packard Company
- The Limited, Inc.
- Saturn Corporation
- Xerox Corporation

Summary of Case Studies

The table below summarizes five company-specific case studies including a brief description of the type of system benefits generated by a nationwide highway network. These examples represent from a cross-section of industries as well as a range of system benefits. They are typical of firm-level examples that have been analyzed in work sponsored by FHWA and AASHTO.

Company	Industry	Type of System Benefits
Campbell Soup Company	Food Products	Campbell Soup Company improved performance throughout its supply chain and reduced overall production costs using a good system of highways to achieve reliable transportation and to adopt just-in-time deliveries and strategic alliances with suppliers. The greater reliability and reduced transport time achieved with truck transportation have allowed Campbell's plants to reduce inventory and handling costs. Most of Campbell's food production plants are not served directly by the Interstate Highway System, meaning that Campbell and its suppliers depend on a good network of arterial highways as well as the Interstates to achieve reliable, just-in-time delivery.
Hewlett-Packard Company (HP)	Electronic Products and Systems	HP attracts and retains highly skilled, innovative employees in part by locating its facilities in areas where the highway network provides good labor access for short- and long-distance commuting. HP's highly skilled employees often place great importance on "quality of life" considerations associated with their residential environment. The highway network at HP locations provides good access from both rural and urban environments. HP's efforts to reduce order cycle times for HP products have resulted in more frequent shipments of smaller sizes. A good highway system is essential for effective shipping to a large number of different customers at different times across the country. Good road access to airports is also important to use multi-modal shipments when necessary to move HP products to the customer even more quickly and reliably.

Summary of Case Studies (continued)

Company	Industry	Type of System Benefits
The Limited, Inc.	Specialty Retail	A nationwide network of 4,425 retail stores in all 48 states is efficiently stocked from a centralized distribution point in Columbus, Ohio, using the Interstate Highway System. The reliability and short transport time achieved by long-distance trucking over the nation's highway system allows frequent and reliable re-stocking of even the most remote locations from the centralized distribution point.
Saturn Corporation	Automobile Manufacturing	Saturn's integrated manufacturing process depends on just-in-time delivery of production materials. The speed, consistency, and reliability of truck transportation over a good highway network facilitates smaller, more frequent shipments of components arriving just-in-time to meet very precise production schedules. Through the use of information technology and dedicated truck transportation, Saturn has reduced order cycle times and inventory costs allowing it to compete successfully with foreign manufacturers in the small-car market.
Xerox Corporation	Document Processing Products	A good highway system provides essential support for on-time delivery of components for manufacturing of Xerox products in Webster, New York. Dependable on-time deliveries through reliable truck transportation using the highway network in upstate New York have helped reduce component order cycle times and inventory costs. Xerox achieved greater efficiency and cost savings in its outbound distribution operations by using a smaller number of carriers, which was achieved by hubbing Xerox's transportation operations using the nation's highway system. The efficiency and reliability of truck transportation over the Interstate Highway System makes it possible to ship Xerox photocopiers from Webster, New York, over long distances on time and in undamaged condition.

Campbell Soup Company
(headquarters, Camden, NJ)

Campbell Soup Company has maintained a reputation for over 100 years as one of the world's leading producers of quality food products and a leader in innovative, cost-saving programs for food production. Over the last 10 years, Campbell's has embarked on a corporate effort to develop strategic alliances and integrate total quality management to improve performance throughout its supply chain and reduce overall costs. The reliability of truck transportation for just-in-time delivery of incoming raw ingredients and other supplies is an important factor in reducing total costs.

A good highway network is crucial to the greater reliability and reduced transport time achieved with truck delivery of supplies to Campbell's food production plants. Most of the inbound supplies to Campbell's food production plants are delivered by truck. Reliable transportation also supports the effectiveness of Campbell's program to develop long-term relationships with a smaller number of suppliers that can ensure consistent quality and product availability at a competitive price. Crucial components of Campbell's strategic alliances for its supply chain are:

- Just-In-Time (JIT) Delivery program, which allows food production plants to receive ingredient and packaging supplies in appropriate quantities just prior to production to avoid costs associated with inventory storage;

- Select Supplier program, whereby Campbell enters into long-term relationships with a smaller number of preferred ingredient and packaging suppliers that assume responsibility for product quality, safety, and consistency; and

- Certified Carrier program, which integrates Campbell's Transportation Department into the quality program and involves selecting qualified carriers with the goal of improving shipping and receiving operations productivity at Campbell's plants.

Over the last five years, truck carriers reduced transport time and played a critical role in the success of Campbell's JIT Delivery program for its food production operations. Campbell's four major soup plants are located in rural areas, specifically, in Maxton, North Carolina; Napoleon, Ohio; Paris, Texas; and near Sacramento, California. Because Campbell's four major soup plants

Campbell Soup Company (continued)

are supplied by internal ingredient plants and outside ingredient and packaging suppliers located across the country, the JIT Delivery program depends on a good system of highways to achieve reliable transportation by truck carriers. With the four major soup plants located in areas not served directly by the Interstate Highway System, Campbell's suppliers depend on a good network of arterial highways as well as the Interstate highways for achieving reliable just-in-time delivery.

Qualified carriers selected under Campbell's Certified Carrier program work closely with Campbell plants to coordinate just-in-time deliveries by suppliers to yield efficiency and savings. Of the 125 carriers used by Campbell for its four major soup plants, four carriers have been qualified as "Certified Carriers" and another ten carriers are currently undergoing the certification process. These include both large and small companies.

Together, Campbell's JIT Delivery, Select Supplier, and Certified Carrier programs have reduced costly inventories, waste, and handling costs. The greater reliability and reduced transport time achieved with truck transportation have allowed Campbell's soup plants and other food production plants to achieve faster turnover of inventory and as a result, carry less inventory. Previously, Campbell's quality control program involved repetitive inspections of supplies after delivery, with rejections that could disrupt production and necessitated large inventories. Now just-in-time delivery of quality-assured supplies contributes to overall productivity gains in the production process. Campbell also believes that using fresher raw ingredients results in the highest quality product and improves customer satisfaction.

According to Robert Bottel, Director of Campbell's Select Supplier Program, the transportation linkage plays a critical role in maximizing the quality effects inherent in a strategic alliance between a supplier and a food production plant. Requiring suppliers to assume responsibility for product quality, safety, and consistency offers little advantage if the product does not arrive at the plant at the right time and in the same condition that it left a supplier's facility.

The Select Supplier program has also allowed Campbell to use electronic data interchange to link its computers with the databases of some suppliers, which Bottel says reduces errors and speeds up order cycle times. To achieve the maximum benefits from faster and more accurate communication with suppliers,

Campbell Soup Company (continued)

carriers must also be involved in this information exchange and be able to adjust to changes in transportation service as required.

Bottel's analysis indicates that measurable benefits from Campbell's Select Supplier program were $2.3 million in 1990, $18.4 million in 1991, and over $25 million in 1992. Further, Bottel states that the cost of administering the program has been approximately one-twentieth of the total benefits. More specific benefits include savings of $248,000 per year in carrying charges for corrugated cases. Order-fill lead time for corrugated cases dropped from 10 to two days as supplier inventory dropped from 4.9 million cases to 1.8 million.

Like other companies, Campbell Soup Company is very aware of the need to maintain both quality and productivity to meet increased global competition in the food industry. Reliable truck transportation over the nation's highway system provides vital support to maintaining competitiveness.

Hewlett-Packard Company
(headquarters, Palo Alto, CA)

The strength of Hewlett-Packard (HP) Company is based on HP's emphasis on innovation and its ability to foster creativity among its employees to develop innovative products and services. To attract and retain the creative, highly skilled employees necessary to develop innovative products, HP carefully considers "quality of life" issues in locating its facilities. HP's highly skilled employees often place great importance on "quality of life" considerations associated with their residential environment and are willing to commute long distances to live in their desired environment. According to Jerry Cashman, HP's Director of Transportation, nearly 50 percent of HP's employees travel a one-way commuting distance of over 10 miles. More specifically, 30 percent of HP employees travel a one-way commuting distance of 10-20 miles, 12 percent travel 20-30 miles, and 6 percent travel over 30 miles one-way to commute to work. Consequently, a well-functioning highway network that provides good labor access for short- and long-distance commuting is an important concern for HP facilities.

HP usually locates its facilities around 30-40 miles outside an urban center where a highway network allows good access from both urban and rural residential environments. At HP's facility in Roseville, California, for example, employees can commute on Interstate 80 from Sacramento, California, or from smaller, rural communities in the Sierra Nevada Mountains. HP located several facilities in the Interstate 25 corridor along the Front Range of Colorado (e.g., in Colorado Springs, Fort Collins, and Loveland) because of quality of life considerations for their employees who have the choice of living in an urban area or commuting from the mountains using the highway network. The highway network also provides HP employees good access to recreational opportunities in the Front Range as well as educational and cultural opportunities offered by universities in Colorado Springs and Greeley, Colorado.

In addition to innovative technologies, strong customer relationships are a key factor in maintaining and improving HP's performance in today's competitive environment. As part of a corporate commitment to quality and customer service, HP made improvements in order fulfillment a priority beginning in 1992. Each business within the company has embraced an aggressive goal -- to improve order fulfillment by a factor of 10 by 1997. To achieve that goal, HP is working to reengineer the entire order fulfillment process with a much stronger customer focus, making the customer's desired delivery

Hewlett-Packard Company (continued)

date the driver of the process while focusing on speed, reliability, and costs. Because trucking is the basic mode of transportation for HP, a reliable highway system is vital to achieving HP's goal.

HP currently uses approximately 900 carriers, of which 30 carriers ship most of the goods. The highway network supports efficient shipping from HP facilities by long distance truck transportation. A good highway network is also essential to provide reliable truck access to airports, which allows transport flexibility to ship some HP products by air. Currently, HP is the fifth largest user of overnight delivery services (UPS and Federal Express) in the United States.

Efficient delivery to the customer from HP's Colorado manufacturing plants is facilitated by their location near the intersection of Interstate Highways 25 and 70 (the state's major north-south and east-west highways, respectively). Lack of capacity at this intersection, however, can create a major bottleneck, which is known locally as the "mousetrap." The connectivity benefits provided by this intersection are expected to improve with completion of current construction to improve traffic flow by adding more lanes. In addition, the Denver airport serves as a major hub for distribution of HP products via air transport. Good highway access to the airport for common carriers facilitates next-day delivery.

One of HP's major parts distribution centers is located at Roseville, California. The bypass between State Highway 65 and Interstate 80 provides trucks efficient and reliable access to the Interstate Highway System and the Sacramento airport. According to Tom Denzler, Traffic Manager at the Roseville facility, construction of the bypass around five years ago resulted in reducing truck transit time by at least 10 minutes from the Roseville facility to Interstate 80. With around 120 to 150 truck trips per day to and from the Roseville facility, this results in significant overall cost savings for HP and its carriers.

HP recently improved order cycle times for its workstation division using the concept of "In-transit Merge." HP currently manufactures central processing units for workstations in Exeter, New Hampshire, and orders monitors and other peripherals from the Far East, domestic suppliers, or other domestic HP facilities (e.g., in Boise, Idaho). HP previously made bulk shipments of workstation peripherals from the west coast to Exeter, tested those components, put them into inventory and later pulled about 50 percent of them out of inventory for shipping

Hewlett-Packard Company (continued)

back to the western United States. Now HP has outsourced much of its inbound and outbound logistics for the workstation division with a third-party carrier. This third-party carrier operates a West Coast Supply Center in Fremont, California, to receive, store, and manage peripheral inventory for HP's workstation product lines. "In-transit Merge" was created to merge products from the Exeter and Fremont distribution centers, which are 3,000 miles apart, for a single delivery to the customer, achieving inventory cost and order cycle time reductions. All "In-transit Merge" shipments are coordinated using electronic data interchange, which also facilitates holding down inventory levels at both distribution centers.

Using "In-transit Merge," different components of a workstation are shipped from the two distribution centers to one of the third-party carrier's 22 "In-transit Merge" facilities across the country and they are assembled at that location by the third-party carrier for delivery to the customer on the required date. Multi-modal shipments are used as necessary to move a customer's goods reliably and dependably. Because "In-transit Merge" involves a greater number of smaller shipments from HP's distribution centers, a good highway system is essential for effective shipping to a large number of different customers at different times across the country. To date, HP and its third-party carrier have made thousands of in-transit merges. By HP standards, a successful in-transit merge is measured by an on-time and complete delivery to the customer. Over 99 percent of the merge shipments to date have met those criteria. Because the success of "In-transit Merge" depends on the ability to move the right product to the right place in a time-definite manner, the transport flexibility and reliability provided by the nation's highway system are essential to an effective in-transit distribution program.

In a recent article, Joel Baudouin, HP's U.S. Distribution Manager, stated that outsourcing logistics to third-party providers has decreased order fulfillment costs by 23 percent, from 8.5 percent to 6.5 percent of a product's cost. Increased customer satisfaction is the ultimate reward for improving delivery times through integrated logistics and transport flexibility through shipping products by truck or air. A representative of HP's third-party carrier, which provides "In-transit Merge," explained that the transport mode chosen for a particular delivery depends on how critical the delivery date is to the customer as well as the customer's geographic location. A same-day and, in most cases, a next-day in-transit merge would use air transport to get the necessary components to one of the carrier's 22 "In-transit Merge" facilities. A four-day

Hewlett-Packard Company (continued)

in-transit merge would typically use truck transportation, which depends heavily on a good highway network for reliable, on-time transcontinental shipments.

Like many companies facing tough price competition, HP faces the challenge of reducing the costs of business operations to maintain their competitive position. Materials are the largest cost in manufacturing HP products, which makes efficient procurement and shipping of materials a critical factor underlying HP's competitiveness in the global marketplace. Over the last few years, HP has built a strong supplier program that focuses on cost, quality, and on-time delivery. These efforts helped HP save more than $85 million during 1992. At HP's Colorado facilities, efficient materials procurement is facilitated by their location near the intersection of two major highways (Interstate Highways 25 and 70) and the Denver airport.

By the year 2000, HP expects that 70 percent of demand for their products will come from outside the United States. This makes a strong global presence vital to HP's future. HP has entered into new joint ventures in several countries and is expanding operations at several of its existing joint ventures in Europe and Asia. HP's joint ventures and global marketing of HP products manufactured in the United States depend on an effective intermodal transportation system.

The Limited, Inc.
(Columbus, OH)

The Limited, Inc., is one of the nation's most rapidly growing and ambitious specialty store companies. The Limited was founded in 1963 by Leslie Wexner with one store and first year sales of $160,000. Today, The Limited operates 19 divisions and 4,425 stores in all 48 contiguous states, including The Limited Stores, Lerner New York, Express, Lane Bryant, Victoria's Secret, The Limited Too, and Abercrombie & Fitch. Net sales topped $6.1 billion in 1991 and $6.9 billion in 1992. The Limited Stores, the company's flagship division, has grown from the single outlet in 1963 to over 750 stores in 1992. Through this division, The Limited, Inc., offers a full range of fashionable private label sportswear in large-format retail specialty stores. Because the growth of The Limited has paralleled the growth of the nation's highway system, many of The Limited's retail stores are located in regional shopping malls at the intersection of major highways, providing good access to The Limited stores for customers as well as truck shipments of merchandise.

The rapid growth of the retail businesses operated by The Limited, Inc., is supported by Limited Distribution Services, which meets the retail stores constant needs for faster shipping arrangements. The reliability and short transport time offered by truck transportation over the Interstate Highway System is vital to the success of The Limited's state-of-the-art distribution system.

Through Limited Distribution Services, the company's nationwide network of 4,425 retail stores is efficiently stocked from a single distribution point in Columbus, Ohio, using the Interstate Highway System. Merchandise is shipped by truck from Columbus over selected routes in the highway system to 37 break bulk points, which are located in approximately 25 states. All of the break bulk points are located near Interstate highways. From the break bulk points, merchandise is shipped over the Interstate and other highways to individual retail stores. A total of 37 contract carriers deliver shipments from the break bulk points to retail stores. The transportation reliability and speed achieved by long distance trucking over the system of Interstate highways allows frequent and reliable re-stocking of even the most remote locations from the centralized distribution point. Each retail store is served from two to six times per week by truck with merchandise from The Limited's centralized distribution point in Columbus, Ohio. Heavier shipment volumes occur from July through December and the volume shipped to any of The Limited's retail stores roughly follows the population in a store's service area.

The Limited, Inc. (continued)

According to Limited Distribution Services, truck transportation can achieve shorter transit times than rail for shipping The Limited's merchandise across the country to all 37 break bulk points. Because of the good highway system, the company can achieve overnight deliveries by truck within 600 miles and second-day delivery within 1,500 miles. Team drivers are used for all deliveries over 400 miles. The Limited's state-of-the-art distribution system achieves an average transport time of 2.2 days nationally from the Columbus distribution point.

The Limited's time-based distribution system also relies on information technologies such as electronic data interchange and point of sale inventory control systems, which provide more accurate, timely, and complete information for inventory management. Together, reliable truck transportation and information technology have reduced cycle time to market, allowed reduced inventories at individual stores, and facilitated frequent and reliable re-stocking that allows stores to provide better customer service resulting in higher sales and profits. In addition, with frequent and reliable re-stocking at its retail stores, The Limited is able to eliminate the need for storage at its centralized distribution point by holding almost zero inventory.

Good intermodal connections are important to reducing cycle time to market for The Limited, Inc., because their inbound logistics operations involve water-based, rail, and truck transport. In 1979, Mast Industries, Inc., joined The Limited, Inc., as a support business to supply the centralized distribution point in Columbus, Ohio. Mast Industries has trade relationships with an international network of vendors and production facilities in the Pacific Rim, the Middle East, Europe, and Southeast Asia. Most of The Limited's inventory comes from Asia and 90 percent of the inventory produced in Asia is shipped over the Pacific Ocean in containers to the ports of Seattle and Tacoma, Washington. From these west coast ports, the containers are moved by truck to rail and then shipped by rail to Chicago, Illinois. From Chicago, the containers are shipped by truck to Columbus, Ohio. Shipping by truck from Chicago to Columbus achieves a shorter transit time; specifically, truck transport takes one day less than shipping by rail between Chicago and The Limited's centralized distribution point in Columbus, Ohio.

The Limited, Inc. (continued)

Timely delivery of fashion merchandise is critical to achieving higher sales and profits because customers must find what they want in the store during a particular fashion cycle or they will go to competitors. The Limited's strategy for success depends on staying focused on their fashion mission -- to give their customers what they want, when they want it. By reducing cycle time to market, the Limited's distribution system uses the nation's highway system to get inventory to stores in a more efficient and cost-effective way.

Saturn Corporation
(Spring Hill, Tennessee)

Saturn Corporation was formed as a wholly owned subsidiary of General Motors (GM) in January 1985. Saturn began in 1982 as a GM project to design and manufacture small cars in the United States to compete successfully with foreign manufacturers. After extensive analysis of numerous sites around the country, GM announced in July 1985 that Spring Hill, Tennessee, would be the location of the Saturn manufacturing and assembly plant. Spring Hill, which then had a population of 1,100 persons, is in the greater Nashville metropolitan area and approximately 30 miles south of the city of Nashville. Production began in July 1990 and Saturn Corporation rolled its first cars into showrooms in October 1990. An efficient, effective highway system was a critical factor in GM's location decision and plays a key role in Saturn Corporation's mission to compete effectively with over 40 domestic and foreign companies in the small-car segment of the U.S. market. Saturn's mission is to "market vehicles developed and manufactured in the United States that are world leaders in quality, cost, and customer satisfaction through the integration of people, technology, and business systems."

According to William Fox, Associate Professor of Economics and Associate Director of the Center for Business and Economic Research at the University of Tennessee, transportation considerations appear to have been the largest factor leading GM to locate the Saturn plant in Spring Hill, Tennessee. Among U.S. metropolitan areas, Nashville enjoys particularly good highway and rail transportation links with the rest of the nation. Nashville is one of only a few cities in the U.S. where three Interstate Highways intersect; Interstate 40 (east-west), Interstate 65 (north-south), and Interstate 24 (northeast-southeast). The Spring Hill site provides suppliers with easy access and is close to potential markets (middle Tennessee is within 600 miles of 65 percent of the nation's population). Spring Hill, which is near Interstate 65, has become the hub of an integrated transportation network that serves as an economic lifeline for the production and distribution of Saturn vehicles.

Although no tax concessions were granted to Saturn Corporation by the Tennessee state government, the state did agree to provide funds to train new employees and around $50 million to improve roads in Tennessee. A portion of this road money is for projects that would have taken place without the Saturn plant. However, approximately $30 million was for construction of a 4.3 mile, four-lane divided highway to connect Interstate 65 to U.S. Highway 31 at the Saturn plant site. This highway, known as the Saturn Parkway, was completed

Saturn Corporation (continued)

in 1989. Transportation access was also improved by completion of a rail spur (off a CSX line) onto the Saturn site at Spring Hill in February 1988.

In the Saturn production system, the manufacturing process and product flows are managed as an integrated system from raw material source to final customer, with the entire manufacturing process being customer driven. Saturn's highly integrated manufacturing and assembly complex consists of three major operations -- Powertrain, Body Systems, and Vehicle Systems. The first operation -- Powertrain -- involves making castings from a central foundry and manufacturing engines and transmissions. The second -- Body Systems -- includes the stamping plant, body fabrication, and paint shop. In the third operation -- Vehicle Systems -- car models are assembled and then moved to a shipping yard. Powertrain is at one end of the mile-long Spring Hill site, with Body Systems at the other end and Vehicle Systems in the center. The Spring Hill plant currently produces over 1,100 vehicles daily with two shifts and is tooled to produce up to 240,000 cars annually.

In a recent presentation, Alan G. Perriton, Vice President of Materials Management for Saturn Corporation, stated that "a large key to synchronous manufacturing at Saturn lies in the predictability of quality and the expectation of receiving good parts at a scheduled time." Replenishment scheduling, accurate forecasting, and disciplined inbound transportation methods uncomplicate the supply chain and assist suppliers in providing the exact amount of material at the required time on a repetitive basis. As described below, Saturn's use of information technology and dedicated truck transportation supports the functional integration that makes the Saturn production system an industry leader in operational effectiveness.

Saturn's corporate philoscphy includes integrating suppliers into the manufacturing process as true and legitimate team members. Saturn cars contain approximately 95 percent U.S. product content. Because the goal is to establish a long-term partnership with only one supplier per input, all components are single sourced. Relationships with suppliers are based on mutual trust, high quality standards, cost competitiveness, just-in-time deliveries, and continuous improvement. Saturn was the industry leader in implementing an electronic data interchange (EDI) system, which is used to communicate with over 300 suppliers regarding daily shipping schedules. The EDI system facilitates efficient and accurate scheduling of over 15,000 parts replenishment signals during Saturn's 20-hour factory operations and supports just-in-time inventory control. Saturn's

Saturn Corporation (continued)

long-term relationships with suppliers have eliminated the costs and inefficiency associated with receiving, product testing, and inventory.

Saturn's just-in-time approach to inventory control is based on a "zero inventory philosophy." Two goals of just-in-time are to minimize in-plant inventory and in-transit inventory. Making smaller, more frequent shipments is a method used to control and reduce in-plant inventory. Likewise, in-transit inventory can be minimized by reducing the time shipments are in transit. Because truck transportation is generally faster than rail, Saturn depends on a good highway system to facilitate shipping of components "just-in-time" to meet very precise production schedules. The speed, consistency, and reliability of truck transportation over a good highway network are all factors in the choice of trucking to support Saturn's daily manufacturing and assembly operations. Through the use of EDI and a safe, well functioning highway network, Saturn has reduced order cycle times and also inventory costs by holding down in-plant inventory to an average of two days stock.

At Saturn, the inbound delivery system that supports efficient scheduling with suppliers is single sourced with one truck carrier for inbound transportation. This truck carrier makes around 475 pick-ups from 333 Saturn supplier locations daily and makes around 1,000 inbound dock transactions daily (unloading production materials or loading empty containers) at the Saturn plant. The Saturn plant has 57 docks that provide for "point of use delivery," which allows materials arriving from suppliers to go directly to the point where they are needed on the production line and be installed on a vehicle within hours. The truck carrier is required to arrive at each supplier within a 15-minute window and deliveries to the Saturn plant are made using pre-planned routes and dock times. Nearly all deliveries arrive at the correct dock within a 5-minute window of the assigned time. Transportation damage is almost non-existent. Outbound from the Saturn plant, the truck carrier backhauls returnable containers to suppliers or service parts from the Saturn warehouse. The service parts are delivered to one of four locations around the United States. Backhauling, which integrated Saturn's parts distribution with inbound logistics, has played an important role in reducing overall costs.

Some of Saturn's suppliers are located out of cost-effective distance of the truck carrier's dedicated fleet. Most of the more distant suppliers are located throughout the United States and several are in Canada and Mexico. For these suppliers, and occasionally for expedited freight, the dedicated truck carrier

Saturn Corporation (continued)

manages a group of 17 additional carriers for Saturn. The dedicated truck carrier also transports production materials from ports that arrive by steamship from Saturn suppliers in France and Germany. Overall, the dedicated truck carrier averages 14,000 miles per day and 40 million miles per year.

Saturn's dedicated truck carrier began picking up production materials in June 1990. In a recent article, the dedicated truck carrier reported that their on-time record for both pick-up and delivery approached 99 percent for some time. When Saturn added Saturday to the production schedule in April 1993, the carrier's on-time record dropped to 98.3 percent for pick-ups (15-minute window) and 96.5 percent for deliveries (5-minute window). When all elements of the resulting transportation and logistics changes are fine tuned, the carrier expects to get back up to 99 percent for both.

In May 1987, Saturn first announced its innovative distribution system and retail strategy, known as the Market Area Approach. Saturn dealers are referred to as retailers and each has a designated market area. By December 1993, Saturn expects to have over 290 retail facilities operating in the United States and 70 retailers in Canada. Typically, Saturn dealers hold low showroom inventory, because Saturn's integrated information exchange gives retailers instant information about vehicles in production to assist with customer orders. Outbound transportation involves both truck and rail, with outbound highway transportation of finished vehicles single sourced with a separate division of Saturn's dedicated truck carrier for inbound transportation. Vehicles in production are sequenced to make full loads for most deliveries and allow for a minimal-sized outbound shipping yard at the Saturn plant. By involving the outbound transportation carrier as an integral partner, Saturn has set an industry standard for outbound transportation damage.

For the small car market in which Saturn vehicles are competing, meeting and exceeding the customers's requirements on a consistent basis are key strategies contributing to the success of Saturn Corporation. Ongoing Saturn surveys show 97 percent of Saturn owners say they would "enthusiastically recommend the purchase of a Saturn car" to other prospective car buyers. In 1991, Saturn ranked number one in new-car sales per retail facility, averaging 776 units for the year. This marked the first time in 15 years that a domestic nameplate topped the list. According to an industry survey, Saturn averaged 1,072 new-car sales per retail facility in 1992 (Honda was second with 654 per dealer). In the prestigious J.D. Power automotive survey, Saturn finished third

Saturn Corporation (continued)

in 1992 in new-car buyer satisfaction (behind only Lexus and Infiniti, which are in the luxury car market segment). In becoming a successful U.S. automaker, Saturn Corporation has made a commitment to creating a corporate culture where everything it does -- including inbound and outbound transportation and logistics -- is part of an integrated system focused on quality and customer satisfaction.

Xerox Corporation
(Webster, NY)

Xerox, which won the Malcolm Baldridge National Quality Award in 1989, is a company dedicated to providing its customers with services that fully satisfy their needs. Two of the company's business divisions, Office Document Products and Personal Document Products, develop and manufacture Xerox copiers in Webster, New York, which is part of the Rochester, New York metropolitan area. To serve a nationwide market, Xerox has two geographically designated logistics operations that focus on the delivery of products and services to ensure customer satisfaction in their territories. Xerox currently has two national distribution centers located in Webster, New York, and Cerritos, California. The efficiency and reliability of long-haul trucking over the Interstate Highway System makes it possible to ship finished Xerox products from Webster, New York, by truck over long distances on time and in undamaged condition.

Three long-haul contract carriers are used to move Xerox products from the two national distribution centers to 50 local distribution operations throughout the United States. These local distribution operations, which operate separately from the national network, receive order direction from Xerox sales districts. Xerox has reduced the number of local carriers for outbound transportation from over 100 in the 1980s to 50 carriers today. Achieving greater efficiency and cost savings with a smaller number of carriers was possible by hubbing the company's transportation operations using the nation's highway system. Over the last 10 years, Xerox has gradually reduced the number of its national distribution centers from six centers across the country to two centers in New York and California. Xerox has been able to achieve the same levels of service with a much smaller number of distribution centers because of the system benefits provided by the nation's highway network. More specifically, a good system of highways allows truck carriers to move across the country quickly and improved highways have facilitated more efficient use of vehicles.

Xerox has a unique delivery program called Ready-to-Run, which began in the 1980s. Under the Ready-to-Run program, contract carriers deliver and install low- and mid-volume business copiers, get them operating, train the customers on basic operating procedures, and pick up trade-in copiers. This program was first used for low-volume equipment such as desktop copiers, but it has been so successful that the same contract carriers were also trained to install and operate mid-volume business copiers. The Ready-to-Run program has increased customer satisfaction by delivering Xerox copiers and installing them quickly to enhance the productivity of a customer's operations. It also saves

Xerox Corporation (continued)

Xerox the cost of sending technicians on special trips to install the copiers and pick up trade-ins.

Achieving customer satisfaction by increasing the speed with which products and services are delivered to Xerox customers also depends on product quality and reliability. Xerox, like many U.S. companies in the late 1970s and early 1980s, saw its market share fall steadily as foreign-made copiers entered the U.S. market. Facing competition from products that surpassed them in both quality and lower cost for the first time, Xerox initiated a process of continuous quality improvement in the late 1970s that included building partnerships with suppliers. Xerox has reduced the number of certified suppliers of its production components (from more than 5,000 in the early 1980s to 420) and worked closely with those suppliers to reduce defective components (from about 10,000 parts per million in 1980 to around 225). The cost of purchased parts has been reduced by 45 percent and component order cycle time reduced from 39 weeks in 1980 to eight weeks in 1992. Because Xerox usually selects suppliers within a 600-mile radius of a production plant, a good highway system in upstate New York provides essential support for on-time delivery of components for manufacturing Xerox products in Webster, New York.

In 1992, Xerox introduced a program to reduce the number of truck carriers that transport components to its production plants with the objectives of improving overall service levels and gaining greater leverage on the costs of inbound transportation. According to Glenn Miller, Manager of Multinational Logistics, Xerox has improved its inbound transportation operations by reducing its carrier base from 100 to 44 approved Xerox carriers in 1992 and from 44 to 23 approved carriers in 1993. Through reducing and rationalizing its carrier base, Xerox has achieved greater transportation reliability and with dependable deliveries has also reduced component order cycle times and inventory costs. Xerox is currently moving to a dedicated transportation provider and will require that carrier to assume more responsibility for coordinating reliable on-time deliveries.

Xerox's certified supplier base currently includes 420 companies producing supplies that are shipped to Webster, New York, from over 1,000 shipping locations. Around 80 percent of those shipping locations are in the northeastern United States within 600 miles of Xerox's manufacturing plants in Webster, New York. Many of the remaining shipping locations are in the central and midwestern United States. According to Miller, a reliable highway system in

Xerox Corporation (continued)

New York State and a good highway network from the central and midwestern states to the Rochester, New York metropolitan area has allowed Xerox to reduce its carrier base and achieve improved service levels (e.g., on-time delivery of components) and cost savings for inbound transportation. The highways in New York State provide good north-south and east-west coverage, which allows for route flexibility.

Miller believes that planned improvements in Xerox's inbound transportation through their current move to a single, dedicated transportation provider (e.g., reductions in overall mileage) also depend on a good highway system. Xerox has earmarked the northeast, central and midwestern states as areas for dedicated transportation by this single carrier and also will use that carrier to coordinate other shipments by common carriers from Texas and California.

Xerox has made environmental considerations one of the major criteria in improving its transportation operations. According to Miller, reducing the number of carriers has led to reduced vehicle miles, saved fuel, and facilitated the use of returnable shipping containers. As Xerox moves to a dedicated transportation carrier, the use of returnable shipping containers is expected to increase, with benefits to the environment and increased efficiency and cost savings in Xerox's inbound transportation operations.

Today, Xerox Corporation competes on quality and the company's market share is now growing instead of shrinking. Because customer satisfaction is the number-one priority for Xerox, the efficiency and reliability of long-haul trucking over the Interstate Highway System contributes to the improved competitive position of Xerox Corporation. A good highway system provides a vital foundation for the company's strategy, which is to be the leader in the global document market by providing total document solutions that enhance business productivity.

TESTIMONY OF THE

AMERICAN PUBLIC TRANSIT ASSOCIATION

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION

OF THE

HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

March 3, 1994

PRESENTED BY

Rod Diridon
Chairman of the Board of Supervisors for
the Santa Clara County Transit District and
Chair of the Transportation Joint Conference Committee and
Chairman of the American Public Transit Association

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APTA

APTA represents over 1100 members, including all major commuter rail operations, motor bus and rapid transit systems, and organizations responsible for planning, designing, constructing, financing and operating transit systems, APTA members include business organizations which supply products and services to the transit industry, academic institutions, and public interest groups.

INTRODUCTION

Mr. Chairman and Subcommittee Members, thank you for giving the American Public Transit Association (APTA) the opportunity to testify on the consideration of the National Highway System (NHS) and related transit and highway issues.

I am Rod Diridon, Chairman of APTA and Chairman of the Board of Supervisors for the Santa Clara County Transit District and Chair of the Transportation Joint Conference Committee. APTA represents U.S. transit systems that provide some 97% of our nation's mass transit services. APTA's membership also includes manufacturers and suppliers who provide the goods and services to the industry.

Our testimony today will summarize the concepts that are at the heart of ISTEA, and why we believe that the NHS should be one component of a National Transportation System (NTS). We will offer our views on the development of the NHS, principles we hope to see guiding development of a NTS and minor changes to the Intermodal Surface Transportation Efficiency Act (ISTEA), issues to be discussed in subsequent legislation, and finally we will discuss several other transit-related issues.

This hearing, and the legislation that the subcommittee will draft, are opportunities to improve ISTEA so its goals can be achieved more effectively. The NHS bill is an appropriate vehicle to strengthen ISTEA's innovative planning concepts, to reinforce provisions that encourage intermodal linkages, and to authorize new public transportation projects that have been recommended by local Metropolitan Planning Organizations (MPOs.) It also provides a great opportunity to begin developing a NTS.

WHY A NATIONAL TRANSPORTATION SYSTEM?

During the past four decades, U.S. investment in highways and public transportation occurred through a series of largely independent federal assistance programs. Transportation systems and services were designed for the most part in isolation and without regard for their impact on alternative modes or the communities they served. The cornerstone of earlier federal surface transportation policy was the now virtually completed Interstate Highway System. This system was supplemented by primary and secondary highways and the bridge program.

The six-year extension of federal transit and highway programs enacted in 1991 ushered in a dramatic new era of surface transportation in America. Enactment of ISTEA coincided with the completion of the Interstate Highway System and set a new direction for national transportation investment for the 1990s and 21st Century.

The need to alter our national transportation priorities grew out of a recognition that transportation investments should be tailored to meet local needs, that they are most effective when they complement each other, and that they have a lasting effect on the economy, the environment, national competitiveness, and our quality of life. Today, persistent air pollution in our cities, costly congestion on our highway system, isolation in inner city neighborhoods and rural communities, and a sluggish economy and lagging productivity growth are reasons why future transportation investments demand a new approach.

A NTS should include transportation options that provide local and regional access within urban centers and rural communities, as well as options and systems that provide access between communities of all sizes. When viewed together, these systems represent an interconnected network national in scope and importance. The efficient movement of goods and people affects the quality of our lives and economic growth.

Today, this vision is essential if we are to move from an era in which transportation progress is measured by miles of highway pavement to one in which people measure their mobility in terms of their proximity to interconnected, shared-ride transportation services.

Key Concepts of ISTEA That Support A National Transportation System

ISTEA recognizes that transit is a vital component of the new intermodal network. We provide services to the transit dependent in all parts of the country and we provide clean air and lower congestion alternatives to people in the most populous and urbanized areas. The highway program used to be justified in terms of interstate commerce -- now we understand that interstate commerce will bog down unless transit is available to take cars off the most crowded freeways.

ISTEA envisions that all elements of the transportation system be coordinated and intermodally integrated so that the overall system will be more efficient and more responsive to human and economic needs. In addition, transportation systems should be related to other critical needs -- environment, long-term planning, etc.

The direction for future transportation decision-making is clearly stated in ISTEA:

> 'It is the policy of the United States to develop a National Intermodal Transportation System that is economically efficient and environmentally sound, provides the foundation for the Nation to compete in the global economy, and will move people and goods in an energy efficient manner.'

A continuing emphasis on road building as the centerpiece of our national surface transportation strategy is increasingly seen as an incomplete course for the nation. New surface transportation choices are needed along with increased integration of new and

existing systems. The expansion and improvement of the full range of America's public transportation services is a major goal in the creation of a balanced, intermodal network. With regard to public transportation, ISTEA states:

> 'The National Intermodal Transportation System shall include significant improvements in public transportation necessary to achieve national goals for improved air quality, energy conservation, international competitiveness, and mobility for elderly persons, persons with disabilities, and economically disadvantaged persons in urban and rural areas of the country.'

The law also provides state and local government with greater flexibility in determining how to comply with clean air and other mandates. Flexibility does not mean ignoring these mandates or the needs of transit dependent people (elderly, low-income, etc.). It does mean, however, that localities need the ability to employ different solutions which best meet their unique needs.

Our Nation's Changing Transportation Needs and Services

Our population continues to increase and the America of tomorrow will be older and more ethnically diverse, and, we believe, more dependent on public transit for transportation.

The U.S. population will grow by 50% by 2050. Population is expected to grow to 275 million by 2000 and to 383 million by 2050. Most of those people will live in cities. Currently, 80% of America's population live in metropolitan areas. Forty-six of America's cities have or will have one million or more residents by the year 2020. These 46 largest cities will equal 43% of the nation's current population.

Tomorrow's America will be older. The 85 and older population, currently 3.3 million, is projected to double by 2020.

Sixty-two million people live outside metropolitan areas. Unfortunately, many residents in rural America lack access to automobiles. Nearly half of the rural elderly are in poor health, and 60 percent are not licensed to drive. Currently, 35 percent of rural residents live in areas with no public transportation.

A NTS is needed to provide access to medical treatment. According to APTA's 1992 transit rider profile: In areas of less than 50,000 population, medical trips accounted for about 17% of public transit trips.

Transit, Amtrak, intercity bus, rural transit (including social services), and high speed rail can no longer be viewed as competitors. All are in the transportation business. A network which integrates these modes will enable those who are unable or unwilling to travel from Portland, Maine to Portland, Oregon by private automobile other transportation options.

Amtrak with bus companies provide bus links to smaller cities. Intercity buses provide feeder bus service to Amtrak's 25,000 mile system. Greyhound provides service in 72 intermodal terminals, about one-third of these terminals include intercity train service. Other intercity bus carriers are linked with Amtrak at more than 100 terminal sites.

High speed rail moved a step closer to reality in 1993 when Amtrak tested both the Swedish X-2000 and the German ICE train. Amtrak's high-speed rail improvement project is now underway between New York and Boston.

Transit and Amtrak work together. Amtrak carries some 25 to 30 million rail commuters annually under contract with commuter rail authorities. Amtrak and transit share space in intermodal terminals including Grand Central and Pennsylvania Stations in New York, Union Station in Washington, D.C., 30th Street Station in Philadelphia, and in Boston and Los Angeles.

More than 70 intermodal terminals are either in the planning or construction phase. The nation's ten busiest airports represent important intermodal connections. Eight of these cities have or plan to have high-capacity transit service from the airport into the central business district. Less car traffic at airports improves travel time for the movement of goods.

By looking at either "America's New Surface Transportation Network" map that APTA prepared or the maps FHWA delivered to Congress, we see how different localities seek to coordinate transportation options. APTA's map shows numerous links between modes. Some of these links occur at or need interstates; others occur at the center of major metropolitan areas while others are small intermodal links in rural America.

APTA'S RECOMMENDATIONS ON THE DEVELOPMENT OF A NHS

The NHS should be viewed as part of a NTS

On December 9, 1993, Secretary of Transportation Federico Peña announced the submission to Congress of a proposed National Highway System (NHS) and also the Administration's intent to develop a National Transportation System (NTS).

Secretary Peña's NTS vision is the right direction for our transportation system. It will make ISTEA work even better. APTA and the entire transit community laud Secretary Peña for the announcement of a NTS because it reflects transit's calls and advocacy efforts for equality among all transportation modes. Congress should make sure that its actions on the NHS are in harmony with the NTS vision, and that the concept of the NTS is incorporated into the ISTEA legislation.

APTA and its partners have produced America's New Surface Transportation Network, which demonstrated the linkage of the nation's high-capacity shared-ride surface transportation services: public transportation systems, intermodal terminals, current and proposed Amtrak passenger rail lines, and high speed rail and mag lev corridors. Investments in this intermodal network can relieve congestion, reduce air pollution, save energy, improve productivity, and meet the mobility needs of all Americans.

Accordingly, we urge you to support the concept of a National Transportation System that includes the principal elements of America's New Surface Transportation Network.

Local surface transportation projects are usually well-known to residents of the community, yet they are not viewed as a connected system. Few localities consider the broad picture that emerges when these systems are combined nationwide. Correcting this misunderstanding and assuring that fully integrated operation of surface transportation services is implicit in the ISTEA and should be at least as high a priority for the nation as expansion of the National Highway System.

APTA believes a National Transportation System should combine transportation systems in these three settings:

1. Within the nation's major metropolitan areas.
2. Throughout small communities and rural America.
3. Connecting metropolitan areas with one another and rural America.

In metropolitan areas, NHS/NTS routes should be incorporated in the metropolitan planning process

All components of the National Transportation System need to be fully integrated in the planning process, especially in metropolitan areas with serious congestion and air quality problems. The federal government must reinforce -- through its policy and funding decisions -- local plans that comply with the mandates created by ISTEA, the Clean Air Act, the Americans with Disabilities Act, and other laws.

At present, planning regulations don't adequately guarantee that metropolitan area NHS routes will be fully integrated into the metropolitan planning process. This would undercut a major goal of ISTEA's authors. How can an MPO comply with clean air mandates if decisions on major roads are out of its control? The NHS and NTS should be incorporated in the metropolitan planning process, not imposed on it.

Proposed NTS corridors in Transportation Management Areas (TMAs) should be recommendations that conform with congestion management and clean air attainment plans.

The MPOs should determine the most appropriate way to improve mobility on the NTS corridors in their areas, including investments in high-capacity rail services that need not be directly adjacent to highway routes. Otherwise, MPOs will have a much harder job of meeting clean air targets and linking the transportation planning process to land use planning goals. For some congested highways, the key may be a transit rail route, a busway, a freightway or some other investment.

Metropolitan areas should receive an equitable share of NHS funds

If the NHS is not handled carefully, the limited dollars may not go to the areas of greatest need. One problem is that there's no guarantee that metropolitan areas will receive their fair share. This is why some have suggested a suballocation of NHS funds based on population, VMT, or congested miles of NHS routes.

APTA supports the concept of equity and we want to stress its importance. Metropolitan areas are the places where congestion presents the most serious threat to the efficient operation of the NTS, so it is important for these areas to receive a fair share of the federal resources designated for the creation of an efficient NTS.

PRINCIPLES TO BE ADDRESSED IN LEGISLATION DURING THE 103RD CONGRESS

Development of a National Transportation System

DOT should submit, and Congress should approve, a National Transportation System (NTS) proposal with a National Highway System (NHS) component. The NTS should designate corridors and should include principal elements of America's New Surface Transportation Network. The NTS should support attainment of full accessibility required by the Americans with Disabilities Act and environmental improvement required by the Clean Air Act.

The ISTEA framework is fundamentally sound, but it can be improved through legislation that requires Metropolitan Planning Organizations (MPOs) to enhance the role of transit agencies and local governments.

The NTS should be incorporated in the metropolitan planning process, not imposed on it. Proposed NTS corridors in Transportation Management Areas (TMAs) should be recommendations that conform with congestion management and clean air attainment plans. The MPOs should determine the most appropriate way to improve mobility on the NTS

corridors in their areas, including investments in high-capacity rail services that need not be directly adjacent to highway routes. Otherwise, MPOs will have a much harder job of meeting clean air targets and linking the transportation planning process to land use planning goals.

Metropolitan areas should receive an equitable share of NTS funds. These are the areas where congestion presents the most serious threat to the efficient operation of the NTS, so it is important for them to receive a fair share of the federal resources designated for the creation of an efficient NTS. DOT and Congress should work with APTA and other interested groups to develop a definition of NTS funding equity.

Finally, transit systems should have stronger roles in MPOs, including full voting membership and voting representation on the MPO executive committee or governing committee.

PRINCIPLES TO BE ADDRESSED IN SUBSEQUENT LEGISLATION

Federal policies should make it easier to forge intermodal linkages among all modes of transportation. Subjects that must be addressed include: project evaluation criteria, elimination of legal barriers, railroad involvement in the national transportation network, funding issues, and decision-making authority within DOT.

The criteria used to measure project cost-effectiveness should include costs of vehicle emissions, congestion, and other factors that are not adequately measured at present. More accurate measures of these costs will show that public transportation projects are more efficient and effective investments as part of a balanced transportation system.

THE IMPORTANCE OF FULL FUNDING OF ISTEA

When ISTEA was passed, it was recognized that the funding wasn't enough to meet all needs -- priorities would have to be set. Particularly with respect to transit programs, funding has fallen below authorized levels, making it even more critical to set priorities. This is an argument for transit because transit is cheaper than new highways in areas where congestion and air pollution are most serious -- the urbanized areas where land acquisition costs, etc. make new freeways impractical.

The transit industry has been, overall, satisfied with the results of the ISTEA. ISTEA created a good framework for national transportation policy. It is taking longer than we would have liked to implement some of its most innovative provisions such as the flexible

use of STP and CMAQ funds. But, there is demonstrable progress each year. APTA supports ISTEA, and we hope that everyone will agree that full funding of ISTEA will be achieved only when all authorized programs are fully funded -- including the transit operating assistance program.

Cuts In The Operating Assistance Program Will Harm The Federal Transit Program

The transit operating assistance program is currently under fire in the Administration's proposed FY 1995 budget. The President's budget proposes to cut operating assistance by $200 million over current levels. In response to this proposed cut, APTA recently conducted a survey which was answered by 120 APTA members. The survey results indicate that seven out of ten transit systems stated that they would be forced to raise passenger fares to make up for a proposed $202 million cut in federal operating assistance. Results from the survey also indicate that the responding systems would increase fares by an average of 23 percent. This means that the cost of a $1.00 bus or train ride would jump by about 25 cents.

To make up for the loss that a 25 percent cut in operating aid would entail, fares would have to rise at a percentage significantly greater than the share that the operating assistance cut comprises of a transit system's budget. This is because the amount of revenue derived on an aggregate basis by all transit systems from the fare box is only 39 percent. This means that fares must be increased by a disproportionate amount to make up for loss of operating aid. Our research also shows that when fares are increased by ten percent ridership decreases by four percent, and this of course further reduces operating revenue.

APTA enthusiastically supports the Administration's proposal to increase Section 9 capital by $624 million. However, to take advantage of this, transit systems must come up with matching funding of $156 million. If transit systems are forced to find an additional $202 million in operating aid, it will be extremely difficult for many of them to also find local funds to take advantage of the opportunities offered by new capital assistance.

APTA intends to work with Congress to urge that operating assistance be maintained at least at its current level -- if not to the authorization in ISTEA. Such an outcome would complement the Administration's proposals to increase transit capital funding.

Transit systems are trying to find additional operating funds to carry out costly federal mandates. These include the Americans with Disabilities Act, estimated to cost transit systems $650 million a year, and new requirements to test workers for drug and alcohol abuse, budgeted at $42 million annually.

ANCILLARY TRANSIT ISSUES

Rahall project criteria

APTA applauds Chairman Rahall and the Subcommittee's efforts to make sure that resources are invested soundly. The criteria used to measure project cost-effectiveness should include costs of vehicle emissions, congestion, project's contribution to providing accessible transportation to people with disabilities, and other factors that in the past have not been adequately measured.

More accurate and complete measures of these costs will show that public transportation projects are more efficient and effective investments as part of a balanced transportation system. Transit investments are "synergistic." Each dollar goes toward a product that is good for clean air, for reduced congestion, for improved ridership, and for ADA compliance. So when you measure the benefits of a transit investment dollar, be sure to capture all the benefits.

Increasing Authority To Spend From The Trust Fund

Because of the failure to provide contract authority to spend trust fund money and budget constraints on spending in general, trust fund balances have developed. These funds were collected for and can only be used for transportation purposes.

We urge the Committee to encourage the use of these funds to meet transportation investment needs. We would be happy to work with the Committee on increasing our ability to spend down the balances in the mass transit account of the highway trust fund.

Emergencies and Natural Disasters

All too frequently, disasters and emergencies threaten our daily lives, often in a matter of seconds. During these extraordinary times, public transit proves over and over that it is a priceless community resource.

Natural disasters such as earthquakes, hurricanes, fires, floods or snowstorms, and manmade accidents such as airplane crashes, train derailments, or bridge or building collapses threaten lives, destroy property, and disrupt daily schedules, creating crises which affect thousands.

During these times, we seek assurances from officials that essential public services are within reach and that critical activities can proceed without interruption. More and more, the public service that keeps the community together is its local public transit system.

Public transit's role should expand in the future for a variety of reasons; among them is the need to assure mobility and emergency response in times of trouble.

To ensure that public transit systems can provide assistance in times of emergency, steady, reliable funding and support are necessary. Local officials and transit managers need the flexibility to maintain reserve fleets, and the access to emergency relief funds and budgets to sustain services. In addition, local governments within a region need the latitude to work together to design and carry out effective emergency, contingency plans.

The recent Los Angeles earthquake demonstrates that a balanced transportation system is essential for responding to emergencies.

The efforts by the Los Angeles transit community have not been ignored by the media. The New York Times, in a Jan. 24 editorial, said the following:

> "The secret is out. Los Angeles does have a mass transit system, and it works. The earthquake has now driven tens of thousands of commuters to give it a try. It is hard to think now of any good that might rise from the rubble, while the city is still in shock. But if the San Francisco-Oakland earthquake in 1989 is any guide, thousands of Angelenos will never again commute by car. Their switch to mass transit will make Southern California a better place to live and work."

Federal Transit Administrator Gordon Linton said California transportation officials should take advantage of the opportunity provided by the rebuilding of much of the Los Angeles transportation road network and focus on building and expanding public transit and other alternatives to the single-occupant vehicle.

"It's clear transit systems across the country, and the world, are a critical link to keep people and commerce flowing. Not just in people's daily lives, but also during times of crisis," he said.

Increased availability and use of public transit and other forms of high-occupancy, shared-ride services are major objectives which should guide national policy in the months and years ahead. To prepare for the 21st Century, we should rethink our national transportation policy; restore balance in our transportation spending; increase federal funding for transit services; and, move beyond the status quo to ensure increasing transit availability and use.

Gas Tax

APTA supports increased federal excise taxes on motor fuels. Any increase in the motor fuels tax should be used to support a predictable, reliable source of funding for necessary investment in the nation's surface transportation infrastructure, including public transportation.

An increase in the federal motor fuels excise tax would encourage energy conservation, better reflect the true cost of highway use, and make high-occupancy public transportation services more competitive with automobile use.

CONCLUSION

Secretary Peña and other Department of Transportation (DOT) leaders are to be commended for their plans to develop a National Transportation System (NTS), for seeking to eliminate counterproductive and burdensome regulations, and for cooperating with the transit industry.

Legislation in response to the Congressionally-mandated National Highway System (NHS) is an appropriate vehicle to strengthen ISTEA's innovative planning concepts, to reinforce its provisions that encourage intermodal linkages, and to provide funding for new public transportation projects. **This legislation is also an appropriate vehicle to develop a NTS.**

Today is not too soon to think about and prepare the United States for the 21st century. We know it takes up to twenty years to plan, approve, design, and build major infrastructure projects.

The need for a balanced transportation system for the 21st century suggests now is the time to introduce a new surface transportation system for America and to ensure that it is as fundamental a part of our national transportation infrastructure as is our highway system.

Thank you Mr. Chairman and Subcommittee members, for this opportunity to express APTA's views on our nation's future transportation policy. APTA looks forward to working with this committee to develop the best surface transportation system for our country.

THE NATIONAL TRANSPORTATION SYSTEM: NEW CHOICES FOR AMERICA

Statement of Hank Dittmar
Director of the Surface Transportation Policy Project
before the
House Public Works and Transportation Committee
Subcommittee on Surface Transportation
National Highway System Hearing
March 3, 1994

" ...we need to move beyond the often distorted lens through which we have planned and built transportation systems and infrastructure in the past. All too often America's transportation investment decisions have been influenced more by the availability of funds for one type of transportation or another -- rather than on a balanced analysis of real consumer needs. We have sometimes pitted highways against transit or trucks against rail -- instead of realizing the need to integrate all of our transportation systems toward the common goal of moving people and goods as efficiently, safely and conveniently as possible."

Secretary of Transportation Federico Pena, introducing the National Transportation System at Washington, D.C.'s Union Station, December 9, 1993.

Good morning, my name is Hank Dittmar and I am the Director of the Surface Transportation Policy Project. STPP is a coalition founded in 1990 to monitor and participate in the federal transportation act reauthorization debate. We represent over 100 groups concerned with establishing a better link between transportation planning and environmental, social and economic considerations.

The purpose of STPP is to ensure that transportation policy and investments help

conserve energy, protect environmental and aesthetic quality, strengthen the economy, promote social equity and make communities more livable. Our panel today demonstrates the broad range of our interests. Joining me are Bill Roberts of the Environmental Defense Fund, Scott Bernstein representing the Center for Neighborhood Technology and the Alliance for a Sustainable Economy, and Betsy Merritt of the National Trust for Historic Preservation.

We are here to comment on the Congressional designation of the NHS. At this time, I would also like to bring to your attention our concern about the possibility of substantive changes to ISTEA. We strongly recommend that the House Public Works and Transportation Committee not move forward on substantive changes at this time. In the interest of brevity, I am attaching our recommendations in the instance any technical corrections are made to ISTEA.

Learning From Adversity

Nature has taught us dramatic lessons this year about how our transportation systems should work. Our over-reliance on a small set of roads has resulted in difficult and trying circumstances during the Mississippi River floods, the recent cold front which paralyzed the Northeast and the Los Angeles earthquake which brought down much of Southern California's freeway system. As the New York Times editorialized, "Los Angeles did not have its last earthquake on Monday, only its latest. Improved mass transit will help it cope with the next one."

A flexible system is a healthy system. Only with a set of alternatives for the same trip can our transportation networks respond to emergencies. In Los Angeles, for example, an abandoned railroad right-of-way in public ownership runs parallel to

the downed Santa Monica freeway. But rail service on this route is not available to Angelenos. By contrast, when the Bay Bridge in San Francisco was damaged by the 1989 quake, traffic snarls were ameliorated by the BART system. L.A. could make better use of its extensive arterial road network and take advantage of carpool and vanpool alternatives as well as telecommuting options. Intelligent Vehicle Highway Systems (IVHS) applications such as smart streets, which allow for traffic volumes to regulate the timing of signals in "real time," provide feedback to improve system performance, further helping the transportation system cope with this disaster.

Choice and flexibility help communities respond to ongoing conditions of stress such as congestion, accidents, toxic waste spills and special events -- all of which can impair the highway system's ability to function. **STPP argues for choice and flexibility, not out of a desire to destroy the automobile, but rather to make the transportation system more efficient and more responsive to its social and environmental context. Transit, ridesharing, IVHS and other information applications, pricing, pedestrian and bike oriented design and techniques such as incident management, access management and smart streets can work together with the highway system to improve its performance overall.**

Is The National Highway System Ambitious Enough?

Mr. Chairman and Members of the Committee, before I proceed, I would like to submit for the record, a paper prepared by Donald Camph for the STPP entitled "The ISTEA and the NHS: One Step Forward, Two Steps Back?" It provides some details on the implications of the National Highway System and some recommendations for better integrating it with ISTEA's planning and intermodal

requirements. The STPP has also developed specific recommendations for the National Highway System legislation.

Transportation unites our nation. Highways and roads, rail lines, canals, rivers and airports link our regions physically, economically, culturally and psychologically. The physical network of transportation facilities is only part of the picture, however. A National Transportation System, as called for in ISTEA's statement of policy and envisioned by Secretary Pena, would go beyond physical facilities to incorporate information technology, operational improvements and better links between public and private systems.

Transportation decisions affect and are affected by our built and natural environment, our economy, and more specifically, the individuals and companies we commonly call "users." These decisions must not only respond to forecasts of growth and demand in specific geographic areas but to the larger social, economic and environmental context. Today transportation policy makers must try to balance and integrate multiple objectives up front, before deciding what to build.

Mr. Chairman, the supporters of a National Highway System are right to point out the excellence and efficiency of our Interstate system. STPP supports the designation of a network of highways which the federal government has an interest in preserving. But we also ask, is it ambitious enough?

This country has always associated progress and ambition with expansion. But the ambition I'm talking about today is of a different kind. In 1991, ISTEA proposed that we take a closer look at what we already have and put it to work more

efficiently. ISTEA also directed transportation planners and builders to put community needs first. In a country that has literally built its reputation on what it builds, this is an ambitious proposal indeed.

Beyond the NHS, regions need to be linked by a National Transportation System which is more than lines on a map. The NTS could begin with transportation corridors, networks and facilities, but must also include management and operational strategies, innovative financing, intermodal partnerships and information systems. This will extend the focus of the NTS from capital investment in facilities to the entire trip those facilities are meant to serve, including its impact on non-users. Congress should challenge regions to develop the Metropolitan Transportation System called for by ISTEA as the key building block of the NTS. It should also seek to engage the state planning process to connect major economic centers without sacrificing the character or economic viability of rural America. Finally, it should interconnect the nation's roads, ports and rail systems to increase the efficiency of freight movement.

Under ISTEA, Metropolitan Planning Organizations are called upon to define an intermodal MTS to serve regional as well as interregional and interstate purposes. The MTS is not only an inventory of existing systems, it is a tool for identifying and addressing gaps between those systems, considering alternatives to new construction as well as indicating where new construction is warranted, and evaluating the impacts of transportation decisions on the region as a whole. The MTS corresponds at the regional level to the NTS at the national level. Congress should direct the preparation of the MTS as part of a new effort to develop a national system.

A National Transportation System should also ensure transportation options and community preservation in America's rural areas by requiring the states to pay serious attention to local needs in those communities. Current NHS proposals have been developed outside such a context. For example, an entirely new Interstate, I-69, is proposed from Indianapolis, IN, to Houston, TX. This proposed project uses new construction to duplicate existing facilities while incurring extensive environmental and social impacts, all at a high cost in transportation dollars. The proposed I-69 extension from Bloomington to Evansville, Indiana will impact over 4,000 acres of rural forests, wetlands, and prime farmland. In Gibson County, Indiana alone, the road could bisect five of the twelve dairy farms and disrupt the operations of poultry and hog farms along the route, bringing in its wake the usual fast food franchises and motels to serve long distance travellers. Forests and habitat are threatened in other areas, local roads will be cut off, and communities will be divided, all for the sake of vehicles that may never stop along the way. When ISTEA includes the tools needed to consider alternatives, it is wrong-headed to move forward on a costly project with such potentially profound impacts. That is why we must link the NHS program to the planning requirements of ISTEA.

Even if connecting major economic centers were the only goal of our national transportation system, the NHS is not a panacea for goods movement. Freight movement problems are concentrated in the metropolitan areas, at critical intermodal connections and on/off system rural roads. Many of the economic benefits claimed for the National Highway System are related to freight movement. The trucking industry has increasingly focused its advocacy efforts in the metropolitan areas, recognizing how costly metropolitan congestion is. The industry is advocating traffic management programs and congestion management

to help goods movement in these areas. Many of the most critical problems are with the intermodal connections -- at railheads, ports and airports. If the NHS is to help stimulate America's economy, a metropolitan focus coupled with an extension of the NHS concept to embrace a National Transportation System is vital.

Conclusion

As Secretary Pena pointed out, it is time to correct the "distorted lens" through which we view transportation decisions. It's always easier to look at one part of the picture, but it's more effective to step back and take in as much as we can.

The initial process for NHS designation took place outside of the planning, metropolitan, and management systems processes under ISTEA. If ISTEA is to exceed more than minimal expectations -- indeed, if the NHS itself is to succeed as an efficient and productive system -- the NHS must be closely linked to metropolitan and state planning to assuring adequate maintenance, community preservation, and improved air quality.

STPP's proposals for this Committee's NHS legislation attempt to focus on what we see as the national needs: assuring maintenance and rehabilitation, dealing with system performance where it is most threatened, ensuring a fair share of NHS funds to metropolitan areas based on population and an intermodal set aside, focusing on improvements with high economic pay-off such as freight connections at ports, airports and the like.

The NHS has the potential to be part of a still greater contribution to our nation's public works, the NTS. It is a daunting challenge to take a wider view of the

question of national transportation priorities, but the pay-off for such an effort is greater efficiency at a lower cost to taxpayers. Secretary Pena has pointed out that improving our nation's transportation efficiency by 1 percent in economic efficiency could save $100 billion over ten years. Simply taking stock of our existing systems and linking them through better planning, coordination, management and assessment will more than get us that 1 percent improvement.

I would like to thank Chairman Rahall and Members of the Committee for providing STPP with the opportunity to appear before you today.

A SUMMARY OF RECOMMENDATIONS FOR POSSIBLE TECHNICAL CORRECTIONS TO ISTEA

Surface Transportation Policy Project
Submitted to the
House Public Works and Transportation Committee
Subcommittee on Surface Transportation
March 3, 1994

STPP Recommends No Substantive Changes to ISTEA

The members of STPP and other supporting organizations are concerned about the possibility of substantive changes to the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). We strongly recommend that the House Public Works and Transportation Committee not move forward on any substantive changes at this time. However, if the Committee proceeds with technical changes, we urge the Committee to give the public an opportunity to review specific legislative language being considered for technical corrections before it progresses to mark up. We also feel that technical corrections should be truly technical in nature. Any technical corrections should be in the spirit of ISTEA and not attempt to undermine the legislation.

We are concerned about modifications to Section 1038, *Use of Recycled Paving Material.* Section 1038 was included in ISTEA to improve the quality and lifecycle of roads, and to address the growing problem of used tires which for some cities is a leading solid waste problem. Extending the lifecycle of our roads by using rubberized asphalt is economically sound and energy efficient. The STPP feels that Section 1038 is a prime example of what ISTEA is all about.

STPP also strongly opposes any attempts to weaken billboard controls on designated scenic byways. ISTEA bans new billboard construction the federal-aid Interstate and Primary sections of state designed scenic byways. STPP believes the billboard construction measure is a critical component of efforts to encourage both conservation and economic development along these roads. These controls are preserving the scenic character of scenic roads without imposing unduly harsh requirements on small business or local or state governments. Indeed, states have welcomed this program. In fact, recent information from FHWA indicates that 90% of responding states are in compliance with this law -- a showing markedly better than compliance figures for the Highway Beautification Act. Clearly, this program is working, and any weakening of scenic byways protections would undermine this successful and innovative program.

Dittmar; March 3, 1994

BEFORE THE

SURFACE TRANSPORTATION SUBCOMMITTEE

HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

National Highway System

March 3, 1994

COMMENTS

SUBMITTED ON BEHALF OF

THE NATIONAL INDUSTRIAL TRANSPORTATION LEAGUE

Edward M. Emmett
President

82-611 – 94 – 15

Mr. Chairman and members of the subcommittee, my name is Edward M. Emmett. I appear this morning as President of The National Industrial Transportation League, the nation's oldest and largest broad–based shippers' organization. The League represents shippers of all types and sizes. Our members use all modes of transportation.

Since health care is a priority topic this year, an appropriate analogy might be to compare our nation's transportation system to the human circulatory system. Everyone knows that the better the flow through our veins and arteries, the better our health. Likewise, the better the flow through the American transportation system, the stronger our economy. A vital portion of our transportation system is in the form of highways. It is imperative that the major highways be planned, constructed and maintained so as to permit the most efficient flow. For that reason, The National Industrial Transportation League strongly supports a designated National Highway System.

During your deliberations, I urge you to keep four ideas in mind.

First, transportation systems only exist for the users. History is full of examples of transportation technology and infrastructure which failed to meet the needs of users.

Second, as a corollary to that point, we must never forget that transportation is a world of constant change. With every change, there will always be winners and losers. The Interstate Highway System terribly disadvantaged and even ruined, many businesses and localities but, overall it has been a tremendous boon for the United States economy. It would have been unfortunate if narrow interests had prevailed to stop the Interstate Highways. You might well hear from such interests with regard to this National Highway System. I urge you to maintain the broader vision.

A major issue which will likely arise is the question of movement of freight versus commuters. All of us have experienced first–hand the frustration of travel woes, particularly in and around urban areas. And, those of us who have been in elected office know how vocal angry commuters can be. On behalf of the members of companies of the League who represent employers, I ask that you remember the economic impact of freight transportation. Without the ability to move raw materials and products in and out of their facilities, American businesses cannot operate to their maximum capacity. If they cannot do that, they cannot create the jobs for the commuters.

And, finally, it is important to realize that the National Highway System does not operate in a vacuum. It will be a key piece in an integrated transportation system. A blockage in any aspect of that integrated system can be damaging. Therefore, special attention should be given to the manner in which the NHS ties together with the railroads, ports and other facilities. Intermodalism is the wave of the future, so I urge you to plan accordingly.

As you move forward in considering the National Highway System, The National Industrial Transportation League stands ready to assist by providing any information you deem necessary. We consider this a very high priority for the future of the United States economy.

Thank you for providing the opportunity to express our support of the concept of a National Highway System.

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Statement of

Jack Gregory
Legislative Chair
TENNESSEE ASSOCIATION OF SPECIAL TRANSPORTATION

and
Legislative Chair
COMMUNITY TRANSPORTATION ASSOCIATION OF AMERICA (CTAA)
Washington, D.C.

Before the

SURFACE TRANSPORTATION SUBCOMMITTEE
of the
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. House of Representatives

March 3, 1994

STATEMENT OF JACK GREGORY

Legislative Chair
TENNESSEE ASSOCIATION OF SPECIAL TRANSPORTATION (TAST)

and

Legislative Chair
COMMUNITY TRANSPORTATION ASSOCIATION OF AMERICA (CTAA)

Before the

SURFACE TRANSPORTATION SUBCOMMITTEE
HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

March 3, 1994

Mr. Chairman and Members of the Committee, my name is Jack Gregory and I come here today in several capacities. I serve as the Legislative Chair for the Tennessee State Association of Special Transportation and as the Legislative Chair for the Community Transportation Association of America. More importantly, I am the Division Manager/Director of Operations of the Mid-Cumberland Human Resource Agency, a large social service agency in Middle Tennessee which is also the transportation provider for that area. I also bring you greetings, Mr. Chairman, from our member Vickie Shaffer and our entire West Virginia delegation.

In the State of Tennessee, there are 10 Section 18-funded rural transit systems which, in FY '92-'93, collectively provided more than one million trips in the state and traveled over seven million miles to get passengers to jobs, medical care and other basic life needs. One quarter of these trips were provided for people with disabilities in Tennessee. We have 437 vehicles in our collective fleet, 45 percent of which are lift equipped.

During the last decade, as Tennessee's nonurbanized population was growing, Federal Section 18 funds grew by nearly 34 percent. However, to keep pace with the growing demands for rural transportation, the state has increased its share of our network's support by a whopping 478 percent.

I appear before you today as a representative of the Community Transportation Association of America (CTAA), a national organization of more than 800 rural, small urban and specialized community transit providers. Like my own network of rural transportation agencies in Tennessee, our members spend their days linking people to jobs, health care and other basic services. CTAA advocates on behalf of the particular needs and problems of the nation's smaller transportation providers.

On behalf of our members, Mr. Chairman and Members of the Committee, we want to thank you for your past efforts to support the smaller transit systems, those serving rural areas and small urban areas of under 200,000 population.

CTAA and its members have embraced the principles as set forth in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). Today I want to share with you some items of a technical nature which we feel would serve to strengthen the current transit network that is in place. In addition, we would like to begin to set the stage for your upcoming work on the reauthorization of ISTEA and the National Transportation System. As my co-panelist will speak about the small urban areas, I will limit my remarks today to rural transportation.

The Growing Need

In a national study currently being conducted by CTAA of Section 18 rural providers, we have found that there are about 1,150 systems currently operating, providing more than 100 million

trips per year. The rural fleet numbers nearly 13,000 vehicles, representing a 28 percent increase over 1989. About 45 percent of these vehicles are wheelchair accessible. Thirty percent of the vehicles in the national fleet are over six years old. Of the vans in service, which make up over half the fleet, 36 percent are beyond their five-year expected life.

While roughly half of Section 18 agencies serve county-wide areas, another quarter operate in multi-county service areas. In those counties that are served, levels of service are woefully low. For example, in 30 percent of those areas served, the yearly trips provided are equivalent to less than 25 per household without a car. The relative service level in urban areas is the equivalent of hundreds of trips per car-less household. Even more striking, however, is that 35 percent of the nation's non-urbanized population is still totally unserved by public transportation.

With regard to funding, these critical rural operations reflect a large number of small providers, doing more with less, and operating on shoe-string budgets where the median rural transit budget is only slightly more than $150,000 per agency.

Transit Funding for FY '95

We are particularly pleased that the Administration's Transit Budget for FY'95 proposes funding, for the first time, at the full levels your committee authorized for the Section 18 program.

We applaud your efforts in this regard and hope that the appropriations process follows suit. We are very much in favor of keeping the formula funds at the fully authorized levels, as these funds make up the core of the very critical Section 18 program. However, we are concerned about the proposed cut in Federal operating assistance particularly at a time when such

assistance is so needed to help us reach our other national priorities. Although the operating assistance issue does not currently affect rural transit agencies, we are opposed to any cut in this urban aid below current levels. My colleague, Dale Marsico, will speak more about the need for operating assistance in small urban areas.

Rural Transit Assistance Program (RTAP)

As you know, the RTAP program has been one of FTA's success stories. It's been a great boon to rural states and operators by making technical assistance and training available, and by really helping the small systems to "do more with less." RTAP was added to the Federal Transit Act in 1987 and funded at an annual level of $5 million.

Under ISTEA, Congress' intent was to assure that funding for RTAP would rise in proportion to the growth of the Section 18 program. That's why it was decided to put it on a formula basis. Over the last two years, however, Section 18 funding has increased by 60 percent, but RTAP funds have actually declined. For example, based on the President's proposed budget for fiscal 1995, RTAP funding would be at $7.69 million next year if it were fully funded at the authorized level. However, proposed FY '95 funding for RTAP is only at $4.6 million, down almost 10 percent from its pre-ISTEA level.

To achieve this congressional objective, ISTEA authorized that five percent of all planning and research funds available to FTA under Section 26 of the Act be set aside for the RTAP Program [Section 18(h)]. In short, Congress intended that funding for RTAP would be equivalent to 0.15 percent of all FTA funds other than Stark-Harris and Interstate Transfers. However, since the passage of ISTEA, Congress has not appropriated the full amount authorized for FTA's planning and research activities, and RTAP

has suffered.

We urge this Committee to take a serious look at this small but highly successful program that contributes so greatly to the efficiency of the rural transit systems. In our judgment, RTAP should be "uncoupled" from the main body of FTA research and planning programs and, beginning in FY '95, provided with its own funding level that is consistent with the original intent of ISTEA. Specifically, it is CTAA's recommendation that RTAP be funded in the future at 0.15 percent of FTA's total budget (exclusive of Stark-Harris and Interstate Transfers).

Transporting Passengers Across State Lines

In many smaller urban areas and rural communities, the nearest health services are located across the state line. Frequently, the alternatives to transporting passengers to another state are either to deny access to needed services or to incur substantially higher costs for longer trips to in-state facilities.

Under the Bus Regulatory Reform Act of 1982 (BRRA), the Interstate Commerce Commission (ICC) was charged with establishing minimum insurance requirements for regulated motor carriers engaged in the interstate transportation of passengers. Under this authority, the ICC has established minimum liability insurance levels of $5 million for vehicles carrying 16 or more passengers, and $1.5 million for vehicles carrying 15 or fewer passengers.

It is clear that Congress intended the Bus Regulatory Act to apply to commercial bus transportation engaged in interstate commerce and that the concern was primarily for the safety of commercial buses. However, the ICC minimum insurance requirements have been extended to all public transit systems,

including those rural agencies being funded by FTA or their respective state departments of transportation, even though these local agencies are not engaged in interstate commerce and already meet state insurance and safety requirements. As a result, many smaller community agencies have been forced to suspend transporting passengers across state lines due to the excessive costs of the additional insurance coverage.

It would appear reasonable to seek a solution that will allow states to assure that individuals have access to needed health and other basic services without, in any way, compromising the safety of passengers or Congress' interest in regulating commercial motor carriers. Furthermore, such a solution will have to be a legislative one, since the ICC has concluded that current law does not allow it the discretion to exempt these public transit agencies or to lower liability insurance limits.

Thus, CTAA seeks your support for an amendment to Section 18 of the Bus Regulatory Reform Act of 1982 (49 U.S.C. 10927). Since Section 18(f) of the BRRA already provides for several exemptions, all that would be needed is the addition of a new subsection specifically exempting passenger vehicles used in the provision of transportation services funded under Sections 9, 16 or 18 of the Federal Transit Act---services that meet the insurance and safety requirements imposed by the states. After an initial period, the impact of these exemptions could be reviewed by the Congress to determine their effectiveness in carrying out national transportation policy goals and the safety objectives of the Bus Regulatory Reform Act.

Intercity Bus Service -- Section 18(i)

As you know, Mr. Chairman, when the Intercity Bus Program, Section 18(i), was added to ISTEA, CTAA had some concerns about the potential competition for funding that would result between

large bus companies and local rural transit agencies over very limited Section 18 funds. We also saw the potential for conflict between local needs in rural areas for improved access to jobs, health care and other basic services and the legitimate national objectives of maintaining adequate intercity bus services.

Those concerns have not been relieved during the first few years that the Section 18(i) has been in existence. By most accounts, many states are struggling under the mandate to set aside 15 percent of their Section 18 funds each year for intercity bus services. They're trying to figure out how to balance off the needs for local transit services in rural areas with the requirements imposed through Section 18(i). Consequently, it is our understanding that only a small portion of the funding earmarked for intercity services has actually been used to date.

At the same time, or possibly in response to the poor track record of this program during its first few years, it is our understanding that the intercity bus industry has proposed that Congress consider using Section 18(i) as a way to finance the addition of lifts and other accessible equipment for its buses. While we certainly support the idea that all public transportation, including intercity bus service, should be accessible, we would question the wisdom of using these limited Section 18 resources to make major capital purchases.

Our recommendation to this Committee is to examine how the program has operated to date, to conduct a thorough inquiry into the issue of declining intercity bus services in rural America as well as in urban areas, and to examine a variety of approaches to meeting this country's need for adequate bus service. Unfortunately, such a study was not conducted before Section 18(i) was adopted in the transit act, but it certainly should be undertaken between now and the time when ISTEA is reauthorized. We would, of course, be happy to offer our assistance in bringing

the industry together for this purpose.

Thanks again for your continuing interest and your help and support for the nation's transit dependent and those who serve them. I've appreciated the opportunity to appear before you today, and would be delighted to try to answer any questions that you may have.

STATEMENT BY
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BEFORE THE
HOUSE PUBLIC WORKS COMMITTEE
SUBCOMMITTEE ON SURFACE TRANSPORTATION

INTRODUCTION

My name is Edwin L. Harper. I am President and Chief Executive Officer of the Association of American Railroads, representing the principal freight railroads of the United States, Canada and Mexico. AAR members employ 89 percent of rail employees and account for 96 percent of annual rail ton-miles and 91 percent of annual rail revenues. I appreciate your invitation to appear before this subcommittee and present AAR's views on the National Highway System.

Like the Administration, AAR views the National Highway System as one step in the development of a truly integrated, multimodal National Transportation System. The industry endorses the vision laid out by Secretary Peña when he released the proposed National Highway System map last December. In the Secretary's words:

"We must aim to integrate all modes of transportation--by road, rail, transit, air, water, and pipelines--in a truly comprehensive National Transportation System (NTS) for the 21st century".

The railroad industry strongly agrees with the Secretary's sentiment. In the past, transportation planning and funding has often been oriented toward a single mode. The result has been imbalanced transportation policy. As the Secretary noted

in December, we have, as a nation "far too rarely considered the impact of public investment decisions on private transportation infrastructure and investments."

As the representative of the privately owned, 113,000 mile U.S. railroad system, maintained by its private owners, I applaud this new emphasis on public-private partnership in transportation.

The railroad industry's exceptional productivity record has positioned it to play a key role in ensuring that the U.S. maintains the world's most efficient transportation system. In fact, among American industries, railroads had one of the fastest rates of growth in workforce productivity during the latest five year period (Exhibit 1).

Moreover, U.S. railroads are far ahead of the railroad industries operating in other countries. According to a recent World Bank report, U.S. railroads are far more efficient than railroads in Europe and East Asia -- whether measured in terms of locomotive productivity (Exhibit 2), freight car productivity (Exhibit 3), or labor productivity (Exhibit 4).

The superior productivity of U.S. railroads is worth a lot more than just bragging rights. Most U.S. exports -- agricultural commodities, coal, chemicals, autos, and so forth -- are subject to competition from other exporting countries. In a very real sense, U.S. railroads compete directly with the transportation systems of these rival

exporters. And in this competition, other countries usually start with a major geographic edge. Unlike our major export rivals, the United States is big. In Western Europe, most manufacturing centers are located, at most, no more than a couple of hundred miles from ocean ports. Distances are even shorter in East Asia--in Japan, most automobile manufacturing takes place on a narrow plain 70 miles long.

In the United States, major industrial centers are often hundreds of miles from each other and from our ports. For American industries to compete effectively in the world market, an efficient long haul transportation system is essential.

Responding to this need, railroads have implemented innovative approaches like rail "doublestack"--the practice of carrying two containers, one on top of the other on a single flatcar. Thanks to the efficiency of doublestack technology, railroads now dominate the long haul corridors linking the midwest with the major Pacific ports (Exhibit 5). And the savings of doublestack are passed on to shippers and producers, slashing transportation costs and making America more competitive.

In developing doublestack, railroads worked closely with the major steamship lines. That kind of co-operation is a pattern we are seeing more and more of in transportation. In effect, private business--railroads, shipping lines, and truckers-- are already working together to build a "national transportation system". Railroads are forming partnerships with major trucking and steamship companies--firms like

Schneider, J. B. Hunt, UPS, Sealand, and American President Lines.

As a result, intermodal movements--trailer on flatcar (TOFC) and container on flat car (COFC)--are up 110 percent since 1982 (Exhibit 6). In fact, intermodal movements are even bigger than these dramatic figures suggest. Intermodal means more than just TOFC and COFC: Railroads interchange with other modes at auto transfer facilities, at bulk terminals and at grain elevators as well as at "conventional" intermodal facilities.

America's world class railroad system is, therefore, already part of a global intermodal transportation network--and AAR looks forward to working with you and with the Administration to define a National Transportation System that for the first time recognizes the intermodal revolution that is already underway.

As you begin your work on this legislation, there are three particular concerns that I would like to address in my remarks today. All are important to fulfill the ISTEA vision if we are to build a true national transportation system.

INTERMODAL CONNECTIONS ARE THE "I" IN ISTEA

On the first of these issues, I would urge the Committee to strengthen the ISTEA planning process to require states and localities to give an extremely high

priority to intermodal connections and especially intermodal freight connections.

Realizing the vision of the Intermodal Surface Transportation Efficiency Act is impossible without sound intermodal connections: the highways, roads, and streets that link together railroads, ports, highways and airports.

We are not alone in arguing the importance of connections.

In introducing the National Highway System last December, Secretary Peña pointed out that one result of the narrow, single mode transportation focus prevalent in the past has been that:

"Frequently, we have not provided sufficient access to ports, terminals, and other facilities where private operators have invested to improve the system."

One major goal of ISTEA was to correct that failure by putting important intermodal connections on the National Highway System. I am very pleased that the Administration's proposal pays special attention to intermodal facilities and connections.

But this special attention also troubles me because it shows the degree to which intermodal connections are still the stepchild of transportation policy. The

Administration's December proposal omitted maps of the urbanized portions of the NHS network. And it gave the states another two years after NHS enactment to complete designation of the intermodal connection portions of the NHS. Assuming that an NHS bill is passed this year, intermodal connections will not be fully designated until five years after enactment of the ISTEA.

The five year delay all too accurately reflects the low status of intermodal connections and freight generally.

This low priority undermines the purpose of ISTEA. It is connections that make the national transportation system intermodal, thereby producing the environmental and congestion benefits of a multimodal transportation system. Unfortunately, today's intermodal connections are, themselves, all too commonly congested, outdated and in poor repair. But without first rate connections, railroads, trucks, highways, ports and airports are condemned to operate separately and inefficiently. America's transportation companies can build the finest private transportation systems in the world--and we are doing so--but we can never build a completely efficient intermodal system without sound connections.

Only national action can solve the intermodal connection problem. That statement may seem odd, since the roads involved are typically local streets and

highways, many in crowded urban areas. But local and even state governments are unable to see the national importance of connections. To them, these are ordinary roads, with no special claim on scarce funds. Only the federal government can see their importance to the national transportation system.

Luckily, improving the connector network is probably the biggest bargain on the NHS.

The total mileage of connections to major rail facilities is small--probably no more than 3,000 to 4,000 miles. And connections are already in place--all they typically need are repairs and improvements, not new construction.

Connectors won't get the improvements they need, however, unless three goals are met: priority in funding; inclusion of all important connectors in the National Highway System; and flexibility in designation.

Congress needs to make sure that connectors get priority through the ISTEA planning process because states and localities are unlikely, as I have noted, to allocate adequate NHS money to what they myopically see as only local projects.

Second, connectors will not even be eligible for funding unless they are included. That process can--and should--be faster than the Administration's two year

proposal. A one year process would be ample--and allow work on rebuilding the connector network to begin a year earlier.

In addition, Congress needs to review carefully state submissions to ensure that all major connectors are included. This means roads and streets that connect to all types of rail facilities with intermodal connections: not just trailer on flat car and container on flat car facilities, but also grain elevators, bulk transfer facilities, auto terminals and other similar facilities.

The railroad industry will be happy to work closely with you and the DOT in the designation process.

Third, NHS designation must be flexible. As railroads build new terminals of all types, or reconfigure old ones, new roads and streets should become eligible for NHS status and funding. The Administration's flexibility proposal is a start, but AAR suggests adding language to ensure connectors get priority in making new NHS designations.

Finally, there needs to be an explicit instruction to state and local planners that freight service receive appropriate recognition and funding when connections are designated. As we all know, freight cannot vote--and planners show an understandable tendency to favor passenger facilities over freight needs. But freight

competes with passengers for transportation capacity. And if freight capacity is neglected, the results typically end up imposing large costs on passenger movements and passenger transportation capacity.

Nothing could provide a clearer example than the all-too-common neglect of connections to urban rail intermodal facilities. Inefficient, under-maintained connectors increase the costs of drayage to and from these facilities and degrade the overall service quality of rail intermodal. The result, of course, is lost market share for rail intermodal and an increase in the total volume of all-highway truck movements. The additional truck traffic may inconvenience motorists and stress highway infrastructure over literally hundreds or even thousands of highway miles -- because of the neglect of a few tens of miles of intermodal connections.

CAP TRAILER LENGTHS AT 53 FEET TO PROTECT THE SYSTEM

The Congress recognized in 1991 that truck sizes and weights were important to the success of the Intermodal Surface Transportation Efficiency Act. In that landmark legislation, the Congress broke with what had been a steady upward trend in truck size and weight limits by reaffirming the cap on weight at 80,00 pounds and freezing the use of longer combination vehicles (LCVs). Subsequent actions have shown that there is an important gap in the Federal regulation of truck sizes and weights which should be filled by enacting a 53 foot cap on allowable truck lengths.

Congress affirmed in ISTEA that increased use of larger trucks was bad for the transportation system: it meant more congested highways, a more stressful and less safe driving environment for ordinary motorists, accelerated highway damage, and a weaker intermodal transportation system--the central thrust of the Act.

By enacting Federal limits on LCVs and truck weight, Congress also recognized the pernicious process of state-by-state weight and size limit increases that AASHTO has referred to as "ratchetting".

As AASHTO noted in a letter written to Senator Burdick shortly before the passage of ISTEA:

> "...it has become apparent that the United States has a de facto policy of progressively increasing the size and weight of trucks. This de facto policy reflects the large share of domestic freight moving by intercity trucks and the promise of productivity gains from larger trucks in excess of calculated costs. Further, this disjointed administration of truck sizes and weights among the individual states and federal government promotes this conclusion by creating numerous opportunities for incremental productivity gains through equalizing sizes among adjacent states. The result is a repeated ratchetting upward from one size and/or weight plateau to the next. States are reporting that they are currently at the edge of today's highway geometrics to accept the last round of truck increases. Since existing roadways cannot be modified as fast as truck size limits, a further round of size increases could result in disproportionate increases in safety issues and roadway deterioration, an issue which should be examined and understood before further changes are mandated or allowed[1]."

ISTEA would have brought this "de facto policy of progressively increasing the

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[1] Letter from Hal Rives, President of the American Association of State Highway and Transportation Officials, to Senator Quentin Burdick, February 19, 1991.

size and weight of trucks" to an end except for the one gap it left. States retain the option of increasing truck trailer lengths without any federal oversight-- even though federal law has mandated the minimum size of trailers since 1982. This gap left the way open to continued and dangerous upward ratchetting of trailer length limits.

Only two years after the ISTEA banned expanded operations by LCVs, there is state level momentum to legalize single trailer lengths of 57 feet or more. 11 states now allow these extra long trailers to operate on the interstate system. And six of them have legalized these behemoths since 1990 (Exhibit 7).

Extra long trailers are now poised to spread explosively through the states. The pattern of extra long trailer operations looks much like the situation with 53 foot trailers in 1985 (Exhibit 8). By 1990, 53s were close to being universal, and by 1993 Rhode Island was the only holdout among the contiguous states (Exhibits 9 and 10).

If extra long trailers spread, there will inevitably be pressure to increase truck weight. Why haul a truck that is partly empty? A 57 foot trailer is 18.8% longer than the 48 foot trailer that was standard when the 80,000 pound weight limit was established. If the 80,000 weight limit were increased 18.8% the next notch in the ratchet would be 95,000 pounds -- higher than the bridge formula.

While technically one can argue that more axles can cushion the impact of the

heavier loads, the fact is that many engineers believe that our highways are not now realizing their twenty year design life. One key reason is rapid growth in truck traffic and heavier weights. Further reductions in highway life would be costly. Each year that the life of the Interstate system is reduced means extra money from taxpayers--and ISTEA already authorizes spending $2.9 billion a year on Interstate Maintenance. Faster deterioration of the National Highway System would be even more costly, since annual authorizations are $3.6 billion a year in ISTEA.

Arguments have been made that allowing ever bigger trucks on the highways will produce productivity improvements. Taxpayers have a right to be skeptical that savings from the "productivity improvements" from bigger trucks will ever see their way into their pocket while they can be positive that they will pay the costs that would be generated from the reduced life of the highway system.

The inevitable result of a new round of size and weight ratchetting would be a renewed threat to the LCV freeze. If huge single trailers are allowed, "why, then, does the LCV freeze still limit double trailers to 28 feet and to 80,000 pounds?"

The general public clearly wants the line drawn right where it is. Eighty-one percent of the public would like to see an end to truck weight increases and 75% would like to see a Federal cap on truck lengths, according to a 1993 AAR-sponsored poll conducted by Frederick/Schneiders, Inc. (Exhibit 11). Sixty-five percent would

even like to see a Federal freeze on truck overweight permits.

The economic benefits of drawing the line where it is now are significant. While individual trucking companies who invest in 57 foot equipment may recover their investment, 98% of the $4.3 billion invested in the rail intermodal fleet would be compromised. Only 2% of the current intermodal rail equipment can handle 57 foot trailers without severe efficiency losses (Exhibit 12).

As railroads see their still relatively new intermodal equipment facing premature obsolescence, they may be reluctant to reinvest. Intermodal is low margin business. If truck size and weight limits are to be constantly ratchetted upward, reinvestment in intermodal equipment may not make economic sense.

Clearly another round of ratchetting up truck size and weight limits is in direct conflict with ISTEA's objective of fostering the development of the intermodal system. State by state increases in trailer lengths subvert ISTEA's intermodal objectives.

Stopping the ratchet from 53 to 57 foot lengths requires federal action. As the experience with 53s shows, states cannot resist the ratchetting effect of truck size and weight increases. Federal law now puts a 48 foot floor on trailer lengths. The AAR urges Congress to add a trailer length cap at 53 feet to existing Federal caps on LCVs and truck weights.

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SET AN NHS GOAL TO ELIMINATE HIGHWAY-RAIL GRADE CROSSINGS

The historic Highway Safety Act of 1973 created and funded a national highway safety program specifically dedicated to enhanced safety at highway-rail crossings by providing for needed engineering and warning device improvements (Section 130 Program). As noted in the House Committee on Public Works report accompanying the Federal-Aid Highway Act of 1973 (H.Rpt. 93-118), "Each year some 12,000 motor vehicle-train collisions occur--an average of 32 a day. They result in 1,500 deaths and 7,000 injuries. . . the Committee intends that every railroad crossing in America will be provided with modern, up-to-date, protection adequate to the risks of each such crossing."

In federal fiscal year 1994, approximately $150 million was apportioned to carry out this important program. As a direct result of the federal funding for highway-rail crossing improvements, annual crossing accident and fatality rates have been slashed by approximately two-thirds from the troubling statistics quoted by the Committee. In fact, the Federal Highway Administration estimates that the Section 130 Program has prevented over 7,200 fatalities and 31,000 serious injuries since 1974.

Without funding dedicated or earmarked for the Section 130 Program crossing needs would have rarely successfully competed with more traditional highway needs,

such as highway capacity improvements and highway maintenance. Historically, highway safety, and particularly crossing safety, has fared very poorly in the competition for scarce financial resources. In fact, this problem was the primary reason a separate crossing improvement program was established in 1973.

Obviously, when the Congress considers reauthorization of ISTEA in the future dedicated funding for the Section 130 Grade Crossing Improvement Program should be continued, but additional steps can be taken today in legislation designating the NHS which will ultimately result in substantial additional improvement in grade crossing safety.

The safest highway-rail grade crossing is the one which has been eliminated. One of the ways grade crossings can be eliminated is by constructing grade separation structures. These structures generally are either highway overpasses or underpasses, usually highway bridges over rail lines.

The 45,000 mile Interstate Highway System has been constructed over the past 40 years with no at-grade highway-rail crossings, and the accident fatality rate on the Interstate is less than half the rate recorded for other highways. There is no similar requirement to eliminate grade crossings on the proposed 159,000 mile NHS.

The NHS will serve as the backbone of this country's entire network of

highways, roads, and streets. While the NHS represents only about four percent of the 3.9 million miles of public roads, it is expected to carry over 40 percent of the nation's highway traffic, including over 70 percent of commercial truck traffic. The NHS represents the most heavily travelled highways in the United States, and they are estimated to contain approximately 4,500 highway-rail grade crossings.

Congress should direct that the U.S. Department of Transportation, just as with the Interstate System, adopt highway design standards which require the elimination of all highway-rail grade crossings on the NHS as a long term objective. Any NHS project which includes a grade crossing within the project termini should provide for its elimination, and no NHS route on a new alignment should include a grade crossing.

In fact, federal criteria should also be developed and adopted which would require the grade separation of certain crossings in conjunction with non-NHS federal-aid highway projects. Such criteria should primarily be based on highway and/or train traffic levels, and require grade crossing separation of all crossings with traffic above a certain defined level.

I would also like to propose a significant new initiative to facilitate the elimination of certain grade crossings off the National Highway System. Just as grade crossing separation eliminates the danger of at-grade crossings, so does grade crossing closure.

Highway and rail safety officials have long advocated the closure of a large proportion of the public highway-rail grade crossings in the United States. Many grade crossings are unnecessarily redundant, serving no significant transportation mobility or access purpose while continuing to constitute a highway and rail safety hazard. Transportation officials have even suggested that perhaps 25 percent of the public crossings could be closed with no significant adverse transportation consequences.

State officials and railroads generally support the closure of unnecessary grade crossings, but are often frustrated in their crossing closure efforts by the emotional opposition of a few local citizens. The closure of grade crossings, rather than appropriately being an objective transportation safety decision, frequently evolves into an emotional/political confrontation. Politics and mere driving convenience will continue to dominate debates over crossing closure until final decisions are ultimately vested with appropriate transportation safety authorities.

In order to facilitate the closure of redundant and unnecessary public grade crossings, a Congressional mandate for crossing closure should be clearly enunciated and a nationally uniform crossing closure process should be established. Such a process should require states to identify and evaluate candidate crossings for closure, utilizing uniform national criteria, and develop and implement a statewide crossing closure plan. Active participation in this National Grade Crossing Closure Program

should be required of all states. Ultimate crossing closure authority should also be vested with the U.S. Department of Transportation for use in instances where a state might refuse to develop or effectively implement its crossing closure plan.

Finally, the Department of Transportation should also be directed by the Congress to develop guidelines which states would be required to follow in deciding whether to permit the opening or creation of any new highway-rail crossings.

Exhibit 1

Railroads:
A Productivity Leader
Rail
Trucking (1967-1931)
Buses (1967-1931)
Industry Average
Motor Vehicles/ Equipment
Airlines
9.0%
4.2%
3.1%
1.6%
0.6%
- 0.8%
-2.0
0.0
2.0
4.0
6.0
8.0
10.0
Annual Change
Source: U.S. Department of Labor

Exhibit 2

U.S. Locomotives
World's Most Productive
USA-All Class I Railroads
Canadian National
Canadian Pacific
Japan
Mexico
France
Germany
United Kingdom
Argentina
0
20
40
60
80
100
(Millions of Annual Traffic Units per Loco)
Source: World Bank

Exhibit 3

U.S. Freight Cars
World's Most Productive
USA-All Class I Railroads
Canadian Pacific
Canadian National
Japan
Mexico
United Kingdom
France
Germany
Argentina
0
500
1000
1500
2000
2500
3000
(Thousands of Annual Tkm per Car)
Source: World Bank

Exhibit 4

U.S. Rail Labor
Leads World in Productivity
USA-All Class I Railroads
Canadian Pacific
Canadian National
Japan
France
Germany
Mexico
United Kingdom
Argentina
0
2000
4000
6000
8000
10000
(Thousands of Traffic Units per Staff)
Source: World Bank

Exhibit 5

Rail vs. Truck
In the Major Doublestack Corridors
Movements Over 500 Miles
Ton Miles
Rail
Truck
100
80
60
40
20
0
67%
33%
80%
20%
1986
1990
Rail includes intermodal movements and boxcar
Truck includes all truckload dry van movements

Exhibit 6

Intermodal's Record Pace
Millions
8
6
4
2
0
1983
1985
1987
1989
1991
1993
Source: Railroad Facts

Exhibit 7

States Allowing Trailers 57 Feet
And Longer on National Network
1984
88,000
lbs
1986
88,000
lbs
1983
1989
1985
80,000 lbs
* Restricted Operations:
AR - 57s with permit
CA - Overall length of 65'
NV - Overall length of 70'

Exhibit 8

States Allowing Trailers 53 Feet
And Longer on National Network
1985
D.C.

Exhibit 9

States Allowing Trailers 53 Feet
And Longer on National Network
1990
Del

Exhibit 10

States Allowing Trailers 53 Feet
And Longer on National Network
1994
RI

Exhibit 11

Opinion on Length Limits
80%
60%
40%
20%
0%
75%
20%
Support Federal Freeze
Support "State Option"
Source: Frederick/Schneiders Inc., May 1993

Exhibit 12

Impact of 57-Foot Trailers
On Intermodal Fleet
58%
57s Cause
Severe
Efficiency
Lossses
2%
Can Handle 57s
Source: AAR Analysis; TTX Corp.

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STATEMENT OF DOUG HOWELL

ENERGY ASSOCIATE

ENVIRONMENTAL AND ENERGY STUDY INSTITUTE

BEFORE THE

SURFACE TRANSPORTATION SUBCOMMITTEE

PUBLIC WORKS AND TRANSPORTATION COMMITTEE

U.S. HOUSE OF REPRESENTATIVES

MARCH 3, 1994

100% Recycled Paper

Good afternoon, Chairman Rahall and members of the committee. It is a pleasure to be here today. My name is Doug Howell, I am an associate with the Environmental and Energy Study Institute (EESI). EESI is an independent non-profit organization dedicated to promoting environmentally sustainable societies. For transportation, that means environmentally sustainable transportation systems.

I thank you for allowing me to be here to represent the new coalition that supports full implementation of the rubberized asphalt provisions of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). We know you have received numerous requests to testify and we are fortunate to have been included. We take that as a clear sign of your willingness to include the "new partners" in transportation as emphasized in ISTEA. Additionally, your staff has done an outstanding job in dealing with so many requests. We applaud all your efforts and those of your staff as well.

I am here representing more than 100 organizations which support full implementation of Section 1038 dealing with rubberized asphalt. This coalition represents national and regional environmental groups, recycling and solid waste organizations, public health organizations, government, industry, and energy organizations.

There are six issue areas I would like to address today.

1. The enormous problems caused by used tires and the benefits from recycled rubber in pavement.

2. The four major substantive issues that critics have raised concerning the use of rubberized asphalt: performance, cost, worker health and recyclability.

3. The need for aggressive technology transfer by the Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO).

4. Concerns related to amendments to Section 1038.

5. Keeping the amending and legislative process open to the public.

6. Ask the House Appropriations Committee not to legislate on appropriations.

1. PROBLEMS OF USED TIRES, BENEFITS OF RUBBERIZED ASPHALT

Used tires are a massive solid waste problem. Each year, 250 million waste tires are generated, and two to three billion tires already litter the nation. Used tires cannot be handled with other waste because they work their way to the surface of landfills, breaking the cover and exposing the landfill contents. Tire disposal is an enormous cost and land use burden for municipalities. Waste tires also are a public health hazard. They are breeding grounds for mosquitoes and rodents. Tire fires, which frequently occur, release toxins in the air and can burn for months. The run-off from the fires contaminates groundwater, streams and soil.

Use of crumb rubber in paving takes a disposal problem and turns it into a valuable resource that can benefit society. Full implementation of Section 1038 will result in the high-value recycling of approximately 100 million of the 250 million used tires generated each year. Rubberized asphalt increases the durability of new pavement by increasing its flexibility while reducing cracking and thereby extending pavement life. The cracks allow water to enter the pavement which leads to potholes -- something we have seen plenty of this winter. Rubberized asphalt also can allow for an overlay of old worn pavement instead of digging up the old pavement and laying down new pavement. Additionally, repeated testing in Europe demonstrates that rubberized asphalt can reduce traffic noise by 50 to 90 percent.

Rubberized asphalt can contribute to safer roads on two fronts. A top layer of pavement made with rubberized asphalt can increase the traction of tires thereby reducing skidding. The director of research and development for the Army Corp of Engineers testified last year before the House Science, Space and Technology Committee on green technologies and made the following comments on rubberized asphalt:

> "We have demonstrated that we can increase the durability of asphalt pavements by including crumb rubber from tires. We can include-- improve the safety of that surface because it also gives you an increased coefficient of friction."

The second safety benefit from rubberized asphalt has been demonstrated extensively in California, where all of the rehabilitation projects that use rubberized asphalt take almost half the time of construction, thereby posing less risk to construction workers and people driving automobiles.

Initial research indicates that energy is saved when employing the California specifications, which have been approved by the regional FHWA. These specifications allow for the use of surface courses half the thickness required for conventional asphalt paving. These pavements also last twice as long, reducing the need for repaving. By reducing the materials required for paving, the energy required to produce the additional asphalt and aggregate can be saved. In fact, it was the need to save energy

during the oil crisis in the early 1970s which prompted the use of reclaimed asphalt pavement. In addition, by rehabilitating worn pavements with rubberized asphalt, repaving of existing roads can be delayed by years thereby further reducing energy expenditures. All these energy savings also translate into reductions in carbon dioxide emissions which help us meet our targets for reduction in greenhouse gas emissions.

This section of ISTEA is one of the most significant federal recycling provisions on the books today, and it is unique. It takes a major transportation pollution problem -- 250 million used tires a year -- and puts nearly 40 percent of the problem back into the transportation system to make better roads. The enormous environmental and public health benefits from recycling used tires and the comprehensive benefits from rubberized asphalt are the reasons why so many organizations support full implementation of Section 1038.

2. PERFORMANCE, COST, WORKER HEALTH, RECYCLABILITY.

Performance The states of California, Arizona and Florida, and several European countries show exceptional performance results with use of crumb rubber modifiers. These consistent results are being achieved in nearly every climatic and road condition. In Arizona, it is used in desert climates and near the Grand Canyon where it can get to 20 to 30 degrees below zero. California anticipates using nearly one million tons of asphalt rubber hot mix in 1994 in all road projects, not just federally funded ones. On December 17, 1993, Florida announced that it will use asphalt rubber hot mix on 100 percent of its road surface courses in 1994. And Arizona, the birthplace of this technology, has been using rubberized asphalt since 1965.

In addition, crumb rubber is used in 180 airports, freight terminals and military installations because of its greater durability under heavy loads. As stated earlier, the Army Corp of Engineers recently testified before Congress that crumb rubber modifiers enhance the durability of asphalt pavements and improve the safety of the road surface due to its increased coefficient of friction.

Cost The cost benefits of rubberized asphalt will not be realized unless the technology is properly applied in specific projects. Applications of rubberized asphalt, therefore, must focus on performance benefits and follow the examples where it has been successfully and extensively applied, and where it is used to enhance performance. The strong link between cost and performance illustrates the need for aggressive technology transfer efforts by the FHWA and AASHTO. These technology transfer and training programs should focus on performance, not just fulfilling the 1038 requirements. States with successful performance results should be enlisted to provide this technology transfer.

The greatest cost benefit from rubberized asphalt is from the lifecycle performance of the roads. This lifecycle benefit complements the AASHTO Guide for Design of Pavement Structures which stresses that all costs occurring during the life of a pavement be included in economic evaluation, not just material costs. While the crumb rubber modified materials are on average 30 percent more expensive, these up-front costs are surpassed by the benefit and cost savings of a longer lasting road. Furthermore, in the case of California, up-front cost savings were achieved because their application of rubberized asphalt allows them to use 50 percent less pavement in their surface courses and rehabilitation projects. This accounts for the majority of the nearly one million tons of rubberized asphalt CalTrans will use this year, thereby saving short-term and long-term money for the taxpayers of California.

The American Society of Testing Materials sponsored a paper last year, True Cost-Effectiveness of Asphalt-Rubber Paving Systems, which states that:

> "Those who are looking only at material cost comparisons should begin looking at the comparable cost of alternate pavement rehabilitation strategies. If systems are compared that truly provide solutions to the problems, then the use of asphalt-rubber can provide a first cost effectiveness in a majority of the cases. Asphalt-rubber will provide life cycle cost effectiveness virtually 100 percent of the time."

The cost of the most widely used crumb rubber modifier process – asphalt rubber – has declined nearly 50 percent since the primary patents on this process expired in June 1992. Furthermore, as larger projects replace the current small experimental projects, economies of scale and greater competition will continue to drive the cost down. Local governments and tire dealers will be the beneficiaries of avoided land-filling costs associated with scrap tires. Asphalt rubber and other crumb rubber modifier processes are increasingly used by states because they are cost effective.

Worker Safety The U.S. Environmental Protection Agency (USEPA) and the U.S. Department of Transportation (USDOT) conducted an extensive analysis of the existing data related to emissions from crumb rubber modifiers. Substantial data has been developed through nearly 20 years of European experiences with these processes. Extensive research on emissions from crumb rubber modifiers has been conducted in Florida, California, Canada and the Netherlands. None of these sources present evidence that suggests these processes produce harmful emissions.

Recyclability There is substantial evidence showing that crumb rubber modified pavements can be fully recycled as demonstrated by the experiences in California, Florida, Arizona, Canada and Europe. The issue of recyclability that has been raised by critics is a political red herring. Opponents of Section 1038 do not raise such concerns regarding the recyclability of newer polymer modified asphalt pavements.

3. THE NEED FOR AGGRESSIVE TECHNOLOGY TRANSFER BY FHWA AND AASHTO

The problem of implementing Section 1038 could be characterized as a technology transfer problem. If states that have had difficulties with rubberized asphalt, had the knowledge and experience of California, Arizona or Florida, then they undoubtedly would not have the problems they are reporting.

There are institutional problems associated with change. State engineers and contractors are resistant. This resistance to the mandate has begun to overshadow the benefits of rubberized asphalt. Some state DOTs simply want to find ways to get rid of the tires and will ignore the significant benefits and cost savings from using rubberized asphalt. It appears that some are more opposed to the mandate than to the technology.

No one, let alone engineers, likes to be told what to do. It is difficult for state highway engineers and private contractors to readily accept practices from other states. Successful practices cannot always be directly transferred to other states which use different binders, different aggregate and have different climates. Since the use of crumb rubber in asphalt is a big change for state highway departments and their contractors, it becomes all the more imperative that FHWA and AASHTO aggressively pursue technology transfer and training programs.

Comprehensive training programs should be instituted immediately. For example, FHWA could be required to hold seminars in each of its regions over the next six months and repeat them as appropriate to meet state and local needs. Questionnaires could be sent to each contractor inquiring into his or her understanding of rubberized asphalt technologies. A consistent flow of information about the technology should be directed to each state DOT and federal contractors. Contractors and state engineers could visit other states to see first-hand how rubberized asphalt is enhancing pavement performance. These are just a few examples. Our coalition believes that strong technology transfer and training programs should be initiated immediately and will have enormous benefits for all concerned.

4. CONCERNS RELATED TO AMENDMENTS TO SECTION 1038.

Civil Engineering Applications AASHTO and state DOTs are asking that they get credit toward the minimum utilization requirement for use of scrap tires in other civil engineering applications (CEAs), sometimes identified as highway appurtenances. We have three concerns and statements related to this proposal. One, we are very concerned that this will detract from the performance benefits of rubberized asphalt. We have already heard of some state DOTs that are trying to find ways to dump crumb rubber into asphalt with no regard to performance benefits. If CEAs are included, the focus

may shift to fulfilling the Section 1038 requirement by using these applications instead of getting the higher value of scrap tires in rubberized asphalt.

The second concern relates to performance criteria for use of scrap tires in civil engineering applications. Crumb rubber in asphalt clearly enhances pavement performance. Use of scrap tires in CEAs may or may not enhance a particular application. For example, there may be some benefit for using scrap tires as low-density or light-weight fill. But there is not extensive criteria to evaluate whether this specific application can enhance performance. Furthermore, once it is used as fill, it cannot be recycled. Other CEAs have even less certainty about their benefit as a material substitute. Our fear is that CEAs may start to be used as well-engineered landfills for tires. In fact, it is our understanding that most of the CEAs may be classified in the lowest value category according to USEPA's hierarchy for use of scrap tires. In any case, where there is clear evidence that used tires can have a material benefit is in the proper application of rubberized asphalt.

The third point on CEAs relates directly to the credit issue. State DOTs want credit toward the Section 1038 requirements for each pound used in CEAs. We believe this is inappropriate when state DOTs can already get credit for CEAs in their tire abatement programs. Section 1038(d)(7) allows for individual state reductions. They apply to USDOT for the reduction if the state believes that their tire abatement programs address their scrap tire problems. The reduction must have the concurrence of USEPA. To date, one state has applied and been denied. Wisconsin, which has one of the most successful tire abatement programs in the country, was denied a reduction because their abatement program did not address the huge backlog of pre-existing stockpiles of scrap tires.

This situation directly leads into concerns over waivers related to claims of needing to import tires to fulfill the requirements in Section 1038.

Importing Tires We have heard state DOTs assert that they would have to import tires in order to fulfill their Section 1038 requirements. Yet the states that has applied for an individual state reduction have been denied. There continues to be discrepancies in the accounting of tires for the abatement programs between state DOTs, their department of natural resources counterparts and the USEPA. If states are truly addressing their tire problems, then they will not have to import tires and will qualify for a reduction of the Section 1038 requirements.

5. KEEP THE AMENDING AND LEGISLATIVE PROCESS OPEN TO ALLOW FOR AND ENCOURAGE PUBLIC PARTICIPATION

We are concerned that Section 1038 will be reviewed for modification without the inclusion of the general public. What happens here today is only the beginning. For the

new partners in ISTEA to be part of the process, it is imperative that this committee provide adequate time for the public to see any legislative proposal well before it is considered for mark up.

6. ASK THE HOUSE APPROPRIATIONS COMMITTEE NOT TO LEGISLATE ON APPROPRIATIONS.

We were extremely disappointed at the moratorium placed on Section 1038 by the House Transportation Appropriations Subcommittee in the FY94 appropriations bill. It was this moratorium on funds that was the catalyst in galvanizing our coalition of more than 100 organizations which support Section 1038. The moratorium in the FY94 appropriations bill had no substantive effect on Section 1038 because the 1994 requirements would have mostly been fulfilled by reclaimed asphalt pavement -- but it was a dangerous and unfortunate precedent.

Now the chairman of the appropriations subcommittee has again recommitted to instituting another moratorium in the FY95 appropriations bill. This time the moratorium will cut into the rubberized asphalt requirements of Section 1038. In 1995, states will be required to use rubberized asphalt in 10 percent of their federal paving projects. At a minimum, 5 percent must be fulfilled by using rubber from used tires. If a moratorium is again included in the FY95 appropriations bill, then the rubberized asphalt requirements will be ineffective. **More importantly, any renewed moratorium may well be seen by the states as the beginning of the end of Section 1038.** We urge this committee not to allow the appropriations committee to usurp this committee's authority over this landmark piece of legislation.

In closing, Mr. Chairman, we urge your committee not to modify or amend Section 1038. Instead, we urge you to push for strong training and technology transfer programs. If FHWA and AASHTO actively pursue technology transfer, then the requirements of Section 1038 could be obtained without any penalties imposed on state DOTs. More importantly, the "win-win" scenario envisioned in ISTEA will be realized -- the environment will benefit and so will the roads.

Mr. Chairman, thank for your time. I would be glad to answer any questions.

STATEMENT OF SUPPORT FOR SECTION 1038
USE OF RECYCLED PAVING MATERIALS (RUBBERIZED ASPHALT)
INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

February 23, 1994

The undersigned organizations support full implementation of Section 1038, *Use of Recycled Paving Materials*, of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). We understand that some Members of Congress, with the help of some special interest groups, may attempt to modify Section 1038 during consideration of the National Highway System early this year.

Section 1038 of ISTEA is a win-win situation for state and local governments because it improves roads and recycles used tires. It requires that all states meet a minimum utilization requirement for recycled rubber (termed Crumb Rubber Modifiers--CRM--by the Federal Highway Administration) in asphalt pavements. Under the statute, five percent of each state's federally funded asphalt pavement projects must use crumb rubber derived from scrap tires beginning in January 1994. This requirement increases by five percent each year until fully implemented in 1997, reaching a 20 percent minimum requirement.

Section 1038 is a landmark law. It is the first minimum recycled content requirement passed by Congress and is one of the most significant federal recycling provisions on the books today. The U.S. Environmental Protection Agency (EPA) estimates that 250 million used tires are generated each year. Two to three billion tires already litter the nation, causing costly solid waste problems for many state and local governments. Section 1038 directly addresses these problems.

Scrap tire stockpiles provide breeding grounds for disease-carrying mosquitoes and rodents. Frequent fires in scrap tire piles release harmful pollutants that pose threats to air quality. The run-off from tire pile fires can also pollute surrounding water sources and contribute to soil contamination. Full implementation of Section 1038 will result in the high-value recycling of approximately 100 million used tires each year.

Not only will Section 1038 help alleviate the massive used tire problem, but it also can significantly improve the quality and durability of our nation's roads. Proper utilization of crumb rubber asphalt decreases road maintenance by increasing resistance to pavement cracking and stress from heavy loads.

The economic development impact of Section 1038 is significant. Full implementation of 1038 will require the construction of 300 new shredding and crumbing facilities to meet the demand for crumb rubber, creating 3,000 to 5,000 new jobs in and around these operations. Also, the crumbing facilities alone will generate an estimated $200 million in annual revenue to add to local tax bases.

Section 1038 addresses multiple national problems by requiring states to use crumb rubber from scrap tires to improve asphalt pavement performance and durability. It offers a sound solution to the massive tire disposal problem while creating thousands of new jobs.

We urge the Congress to stand firm against well-financed special interest groups seeking to overturn this statute. We further urge Congress to maintain and fully implement Section 1038 of ISTEA.

Alabama Tire Dealers Association	Hank McCafferty
Alliance for a Sustainable Materials Economy	Elizabeth Collaton/ Scott Bernstein
Amalgamated Transit Union	Robert Molofsky
American Council for an Energy Efficient Economy	Howard Geller
American Institute of Architects	Albert Eisenberg
American Planning Association	Nancy Willis
American Public Health Association	Rich Gilbert
Arkansas Independent Tire Dealers Association	Fred Simmons
Association of American Wheelmen	Allen Greenberg
Association of New Jersey Recyclers	Marie Kruzan
Association of Ohio Recyclers	Ben Pedigo
Association of Oregon Recyclers	Charlotte Becker
Associated Recyclers of Wisconsin	Gwen McLean
Audubon Society of Rhode Island	Eugenia Marks
Bethel New Life	Steve Steinhoff
Boston Recycling Coalition	Lisa Yane
Californians Against Waste	Sandra Jerabek
California Resource Recovery Association	Ellyn Haye
California (Northern) Tire Dealers and Retreaders Association	Stephanie McCourbrey
California (Southern) Tire Dealers and Retreaders Association	Ed Cohn
Center for Ecological Tecnology	Laura Dubester
Center for Neighborhood Technology	Scott Bernstein
Chesapeake Bay Foundation	Mike Hirshfield
Chicagoland Bicycle Federation	Randy Neufeld

Citizens for Alternatives to Chemical Contamination, Michigan	Ann Hunt
Citizens for Appropriate Rural Roads	Sandra Tokarski
Citizens for a Better Environment, Wisconsin	Susan Mudd
Clean Water Action, Michigan	Dave Dempsey
College of Wooster	Bill Gornall
Connecticut Recyclers Coalition	Winston Averill
Conservation Council of North Carolina	Bill Holman
Defenders of Wildlife	Randy Sargent
Delaware Valley Clean Air Council	Joseph Minott
East Brookfield Recycling Committee	Mark Carpentier
East Michigan Environmental Action Council	Elizabeth Harris
Ecology Action of Santa Cruz	Bonnie Wilson
Ecology Center of Ann Arbor	Mike Garfield
Environmental Action Foundation	Elizabeth Collaton
Environmental Defense Fund	Mike Replogle
Environmental and Energy Study Institute	Ken Murphy
Environmental Health Watch, Ohio	Stu Greenberg
Environmental Law and Policy Center of Midwest	Rob Michaels
Florida Tire Dealers and Retreaders Association	Henry Stansell
Friends of the Earth	Gawain Kripke
Garbage Reincarnation, Inc.	Linda Christopher
Genesee County Area Recycling Coalition	Sue English
Georgia Tire Dealers and Retreaders Association	Lindy Bryant
Gulf Coast Recycling	Penny Penrose
Hudson River Sloop Clearwater	John Mylod

Illinois Recycling Association	Mindy Solomon
Indiana Tire Dealers and Retreaders Association	Carl Bristow
Institute for Local Self-Reliance	Michael Lewis
Institute of Scrap Recycling Industries	Herschel Cutler
Iowa Recycling Association	Mick Barry
Kansas Tire Dealers Association	Shawn Harrelson
Kentucky Resources Council Inc.	Tom Fitzgerald
Louisiana Independent Tire Dealers and Retreaders Association	Norm Rhea
Maryland Public Interest Research Group	Daniel Pontious
Maryland Recyclers Coalition	Joan Rohlfs
Maryland Tire Dealers Association	James S. Stokes
Mass Recycle	Alan Silverstein
Michigan Environmental Council	Carol Misselding
Michigan Recycling Coalition	Peter Pasterz
Missouri Recycling Association	Steve Burdic
Missouri Tire Dealers and Retreaders Association	Jim Courtney
Montana Environmental Information Center	Anne Hedges
Montanans Against Toxic Burning	Sarah Barnard
Montanans for a Healthy Future	Paul Johnson
Mountain States Tire Dealers Association	Patricia Brown
National Environmental Health Association	John M. Barry
National Recycling Coalition	Marsha Rhea
Natural Resources Defense Council	Allen Hershkowitz
National Tire Dealers and Retreaders Association	Ralph Conner

National Wildlife Federation	Sharon Newsome
Nebraska State Recycling Association	Kay Stevens
Neighborhood Capital Budget Group, Illinois	Jackie Leavy
New England Association of Independent Tire Dealers	William Boutwell
New York State Association for Reduction, Reuse, and Recycling	Edwin Marr
New York Environmental Planning Lobby	Loretta Simon
New York Public Interest Research Group	Judith Enck
North Brookfield Recycling Committee	John Alphin
North Carolina Recycling Association	Bobbi Tousey
North Carolina Tire Dealers and Retreaders Association	Bob Smith
Northern California Recycling	Julie Fisher
Ohio Citizen Action	Sandy Buchanen
Oregon State Public Interest Research Group	Lauri Aunan
Ohio Tire Dealers and Retreaders Association	Bill Floyd
Public Citizen's Critical Mass Energy Project	Bill Magavern
Rails-To-Trails Conservancy	Hal Hiemstra
Recycling Advocates, Oregon	Jeanne Roy
Recycle Ann Arbor	Tim Brownell
Rubber Pavements Association	Gordon MacDougall
Scenic America	Sally Oldham
Sierra Club	Debbie Sease
Solana Recyclers	Brooke Nash
South Carolina Recycling Market Development Advisory Council	Ted Campbell

South Central Recycling Association of Massachussetts	Robert Wentzell
South Dakota Resources Coalition	Lawrence Novotny
Southwest Public Recycling Association	Gary Olson
St. Paul Neighborhood Energy Consortium	Mary Tkach
SunShares	Anne Aitchison
Surface Transportation Policy Project	Hank Dittmar
Tennessee Tire Dealers and Retreaders Association	Ken Pendleton
Texas Association of Scrap Tire Recyclers	Dawn Kloster
Texas Tire Dealers and Retreaders Association	Kay L. Knapp
The Good Neighbor Project	Sanford Lewis
The Recyclers of Ingham, Eaton, and Clinton Counties, Michigan	Jim Garland
Tire Technology	James Breuhaus
Union of Concerned Scientists	Alden Meyer
Urban Harvest	Beth Versten
U.S. Conference of Mayors' Municipal Waste Management Association	Thomas Henderson
U.S. Public Research Interest Group	Susan Birmingham
Virginia Recycling Association	Jeff Foote
Virginians for Recycling	Paul Hughes
Vermonters Organized for Clean Up	Tammy Guenther
Warren Recycling Committee	Ted Murphy
Washington Public Interest Research Group	Rebecca Levison
Washington Citizens for Recycling	Jan Glick
West Michigian Environmental Action Council	Julie Stoneman
West Virginia Solid Waste Management Board	Charlie Jordan

Noise Reduction with Asphalt-Rubber

The proven advantages of using Asphalt-Rubber as the binder in hot mix include:

- ***Increases pavement life***
- ***Resists rutting, aging and reflective cracking***
- ***Reduces pavement thickness***
- ***Provides optimum skid resistance***

Another major benefit is traffic noise reduction of 65- to 85-percent eliminating the need for expensive sound barriers.

Numerous noise level studies in the United States and abroad, prove use of Asphalt-Rubber as the binder in Asphalt-Rubber hot mix reduces traffic noise levels dramatically.

This phenomenon was first noted in Brussels, Belgium, in 1981, in an Asphalt-Rubber hot mix called "Drainasphalt." Since then, there have been noise studies conducted in three continents on Asphalt-Rubber hot mix pavements. Results of these evaluations are documented in technical papers published and are briefly reported here, and summarized in the conclusion.

Decibel (dB) is a unit for expressing the relative intensity of sounds on a scale from zero for the average least perceptible sound to about 130 for the average pain level.

The decibel scale is a logarithmic function. An increase of 3 dBs doubles the energy or intensity, and an increase of 6 dBs quadruples the energy or intensity.

Noise Reduction Studies

✔ Drainasphalt (Asphalt-Rubber open graded hot mix) study conducted on the Motorway South of Ghent, Belgium, on the Brussels Loop, 1981, reported by Professor E. Nakkel, President of a Technical Committee on "Asphaltstrasen," Bonn, Germany. He advises of the high cost of reducing noise levels by using sound barriers. His investigation also reveals Asphalt-Rubber hot mix provided a noise reduction of 8 to 10 dBs, a 75-percent reduction in noise.

✔ Michel Amilhat of the Societe des Autoroutes du Nord et de l'Est de la France, Paris, 1988, presented a paper at the Austrian Conference on Asphalt-Rubber in Graz, Austria, on studies conducted in Paris, France.

An investigation was made to determine hydrostatic pressure in and under Drainasphalt placed on city streets along the Seine River in 1984. A significant noise reduction of 3 to 5 dB with no trucks, and 2 to 3 dB reduction with five-percent trucks, were recorded, a 50- to 75-percent noise reduction. As a result, a recommendation was made to overlay the Paris Loop with open graded Asphalt-Rubber.

✔ Dipl. Ing. Horst Pochhacker of West Germany, presented information on the many advantages of Aphalt-Rubber, at the 10th Anniversary International Conference in Graz, Austria, 1988, on Drainasphalt, placed in Bonn, Germany in 1980.

He spoke on the cost of sound barriers compared to Asphalt-Rubber overlays, stating savings were in excess of ten times the cost of constructing sound reduction structures.

Egil Nakkel, Director Prof. and Pres. D Techn Komitees der A.I.P.C.R., Bonn, Germany, informed attendees at these meetings, the thicker the overlay using Drainasphalt, the greater the noise reduction. He said 4 cm is quieter than 2 cm, and reported a minimal 3 dB reduction in noise, which is 50-percent. Nakkel also discussed the high cost of sound barriers in comparison to 4 cm of Asphalt-Rubber drain mix, which is called "FlüsterAsphalt."

✔ Test Road in Dordrecht, Belgium. Paper presented at the National Seminar on Asphalt-Rubber, Kansas City, Missouri, 1989, by Ir. J.C.P. Heerkens and Ir. A. Von Meier. A 2.3-inch (6 cm) layer of Asphalt-Rubber hot mix placed in 1988, had a noise reduction of 3.5 dB as compared to dense asphalt concrete, and 9 dB in comparison to portland cement concrete at 72 mph (120 km). This represents a reduction of 60-to-80-percent.

✔ Test conducted in Europe, reported at the National Seminar on Asphalt-Rubber, Kansas City, Missouri, 1989, by Hugo Van de Veld paper titled, "The Use of Asphalt-Rubber Bituman in Road Construction," (Draining Mix), presented by Jacques G. Bardot. Van de Veld reported draining mixes using Asphalt-Rubber significantly reduce traffic noise. Three to ten dB reductions with speeds of 35 mph (60 km) to 60 mph (100 km) were recorded, representing 50- to 90-percent reduction in noise levels.

✔ City of Phoenix, 7th Street Sound Level Survey, 1990, of a one-inch, gap graded, Asphalt-Rubber hot mix overlay placed in 1989. Conducted by Western Technologies Inc., of Phoenix, Arizona, the study disclosed a noise reduction of 10 dB. This correlates to a sound intensity reduction of eight times or 88-percent.

✔ Arizona Department of Transportation (ADOT), Interstate 19, South of Tucson, open graded Asphalt-Rubber hot mix overlay, placed on a portland cement concrete pavement in 1989. Study conducted by Western Technologies, Inc., Phoenix, Arizona, in 1989, reported an 80.4 dB on the existing Portland cement pavement, and a 73.7 dB on the Asphalt-Rubber overlay. The 6.7 dB difference is a noise level reduction of 78-percent.

✔ At the 1988 Asphalt-Rubber Conference in Graz, Austria, Helmut Prager, Eng. of Austrian Highways and Bridges, Vienna, Austria, presented a paper on research conducted on Highway A-9, the Pyhrnam Autobahn and A-12, the Inntal Motorway.

This investigation confirmed 4 to 5 cm provides better noise reduction than 3 cm for Silent Asphalt Flüsterasphalt. Also, a major reduction of 3 or more dB, with 50-percent or more noise reduction, were verified on old stone city streets overlaid with Flüsterasphalt.

✔ Research reported by Dipl. Ing. E. Reinish at the 1988 Austrian conference on Asphalt-Rubber on Concrete Autobahns overlayed with Drainasphalt in 1985 and 1987, provides significant mix design data.

Asphalt-Rubber surfaces tested on uphill and downhill grades, curves and hills, using Asphalt-Rubber with 6.6-percent binder indicated a need for 20-percent voids in Drainasphalt. Noise reduction values of 6 dB, or 75-percent noise reductions were recorded.

✔ Noise Level Reduction through Silent Asphalt, by Nievelt, Stehno, Stickler and Ertle, a joint venture of CT-Bitumen Gesellschaft, Vienna, ESSO-Specialbitumen, Vienna; Traunfellner Baugesellschaft Scheibbs, on Inntal Motorway A-12 between Innsbruck and Angath.

Noise levels were reduced by 4.1 to 5.5 dB or 60 to 70 percent. The greatest reduction occured at night, with a wet surface. The average noise level reduction was 4.8 dB or 65-percent.

The study advises a 3-dB or 50-percent reduction corresponds to:

- Reduction of the traffic volume by half
- Twenty-five-percent reduction in speed
- Doubling of the distance from the noise source.

Conclusion

Asphalt-Rubber offers many advantages that cannot be denied. Research, Demonstration Projects, and 20 years of performance on thousands of lane miles of roads, attest to this fact.

Noise suppression qualities of Asphalt-Rubber were often overlooked in early research. However, work on the Brussels Loop revealed a very important advantage of using Asphalt-Rubber.

European Engineers discovered in the 1980's, Asphalt-Rubber reduces noise. In recent years, engineers in the United States have recognized the importance and value of this noise reduction quality.

Research has verified a significant noise reduction due to open graded design and the inclusion of crumb rubber from scrap tires. Several comparison studies indicate a 10 dB or 90-percent noise reduction, some indicate only a 3 db or 50-percent noise reduction. In all cases, noise has been reduced by no less than 50-percent.

Pavement surfaces can be designed to reduce noise by 3 dB without rubber. However, the addition of rubber in the binder decreases the dB by six or more.

The maximum acceptable dBs highway and street designers expect is 64 dBs. Many streets and roads have 79 or greater dBs. A well designed surface with Asphalt-Rubber can move noise factors back into an acceptable comfort zone, and eliminate the need for noise abatement structures. Sound walls cost more than $400 per-linear-foot of center line pavement. Asphalt-Rubber hot mix overlays cost $12 per-linear-foot-per-one-12-foot-lane-per-inch.

Noise abatement is only one of the many advantages in resurfacing city streets and urban roads with Asphalt-Rubber.

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TECHNOLOGY POLICY: SURFACE TRANSPORTATION INFRASTRUCTURE R&D

HEARINGS

BEFORE THE

SUBCOMMITTEE ON
TECHNOLOGY, ENVIRONMENT AND AVIATION

OF THE

COMMITTEE ON
SCIENCE, SPACE, AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

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the recycling need. It seems to me that break bats and concrete blocks that are piled around the country and not in used, maybe scrap metal—there are many other ways that we can help to do a job in connection with environmental protection and also be sure that the highways are made stronger.

And so, with that—and also a final shot, it's not always fair to judge us by what happens in some countries in Europe because some of those countries are so small that they can complete a first class highway system and retool the whole thing with the miles of highway that it takes to get through half the State of Texas maybe.

Well, thank you all. We know we will, of course, reserve the right to flood you with questions if in our infinite wisdom we feel that will serve the public need, and perhaps we'll decide it does not.

Mr. VALENTINE. Thank you all so much. We'll see you later.

Dr. JOHN. Thank you, Mr. Chairman.

Mr. CLEMENTS. Thank you.

Mr. KRICK. Thank you.

Mr. SCHULMAN. Thank you.

Mr. PARKER. Thank you.

Mr. VALENTINE. The next panel is Dr. Robert Oswald who is Director of Research and Development, U.S. Army Corps of Engineers, and accompanied by Dr. John C. Potter and Dr. George M. Hammitt.

Mr. CLEMENTS. Mr. Chairman, while they're getting seated—

Mr. VALENTINE. Yes, let me ask—all of you shouldn't leave. We haven't even given the door prizes yet.

[Laughter.]

Mr. CLEMENTS. One of the things that Chief Engineer Williams thought was—as you know, Mr. Chairman, this hearing has been delayed a number of times.

Mr. VALENTINE. Yes.

Mr. CLEMENTS. And, in anticipation of that, we prepared a couple of tapes which explain in the detail—

Mr. VALENTINE. Excellent.

Mr. CLEMENTS. We will leave them with your staff.

Mr. VALENTINE. Excellent.

Mr. CLEMENTS. And maybe sometime you could look at those tapes.

Mr. VALENTINE. We will do. Thank you so much.

Dr. Oswald?

STATEMENT OF ROBERT OSWALD, DIRECTOR OF RESEARCH AND DEVELOPMENT, U.S. ARMY CORPS OF ENGINEERS, WASHINGTON, D.C.; ACCOMPANIED BY JOHN C. POTTER, ANALYSIS TEAM LEADER, ADVANCED TECHNOLOGY BRANCH, SYSTEMS ENGINEERING DIVISION, U.S. ARMY CORPS OF ENGINEERS, HUNTSVILLE, ALABAMA, AND GEORGE M. HAMMITT, CHIEF, PAVEMENT SYSTEMS DIVISION, GEOTECHNICAL LABORATORY, U.S. ARMY WATERWAYS EXPERIMENT STATION, U.S. ARMY CORPS OF ENGINEERS, VICKSBURG, MISSISSIPPI

Dr. OSWALD. Good afternoon, Mr. Chairman.

I'm Bob Oswald, as you said, Director of Research and Development for the Corps of Engineers, and have with me, as you intro-

duced, John Potter, who is the Chief Engineer for our maglev program, and Dr. George Hammitt, who is responsible for our pavement research down at the Waterways Experiment Station.

I'd like to provide just a brief summary of the formal testimony and submit that for the record.

Mr. VALENTINE. Please.

Dr. OSWALD. I think to understand the Corps' role in our R&D in surface transportation, it takes a bit of background to understand that role. Although we were doing some related research prior to the War, World War II, we were brought in in our mission to support the military as well as the civil programs. The Corps was tasked to design and construct air bases for significantly heavy bombers and aircraft for such—which were then the new B-29 super-fortress that you and I probably remember—

Mr. VALENTINE. Yes.

Dr. OSWALD. —plus the development of roadway pavements for tandem vehicles, so that we could increase the load-carrying capacity of our highways to meet the defense needs.

By the end of the War, the Corps of Engineers constructed more than 1,100 military and civil airports and thousands of miles of roads. And since World War II, we have become not only the engineer, construction engineer, for the Army, but we're the construction agent for the Air Force and, as well, for some areas of the world the construction agent for the Navy.

In that role, we have the responsibility for design, construction, maintenance, repair, and evaluation of concrete, asphalt, unsurfaced air fields, as well as roadways. To fulfill this role, the Corps has become, what I would say, a leader in pavement research and development.

Bear in mind that the DOD has about 1.4 billion square yards of pavement in place with a replacement value of about $85 billion in today's terms. The annual budget for just pavement and maintenance on those is about $600 million per year. An equivalent thought is that our pavement totals about three-quarters of the interstate system that you have today in the United States. That's the equivalent pavement that we have on our military bases and air bases. The remainder of the facilities that we support are both—are roughly about 600 Army, Navy, and Air Force air fields.

We have been historically involved in pavement research to provide, I think, leadership. We have probably the most complete set of R&D facilities in the country that exist in our DOD laboratories. We have the only large-scale cold climate pavement test facility in the United States, and we have within the DOD been designated as the lead agency for R&D in pavement research.

And I might say that the objective of our current research program is to revolutionize the procedures for designing and constructing pavements, such that we account for more realistic loadings, material, and material response. We're concentrating our R&D in three areas: alternative design procedures for use—the use of new materials and innovative maintenance practices, and we're doing that through a set of studies which will lead to performance-based life cycle cost design—that was mentioned by the committee; that's our goal—which would be tailored for the particular environment that we're going to be in.

Our current design procedures or practices use static loads. You all know that the actual loads are dynamic. We have, as a result, overly simplified the design that we essentially end up with. Sometimes it results in conservative estimates. Sometimes it underestimates the dynamic loads and impacts.

Our efforts are also directed at the use of predicting pavement performance based on actual material variation in material properties and to take these into account as we predict the life and risk and costs associated with that system. We also want to take into account the variation in that design in terms of the subsoil and the climate in which you're designing that particular highway to function.

So we believe that these studies will develop a better probablistic characterization of the variability to allow the designer to quantify the impact that the variability of materials, weather, and environment have on the performance and risk associated with that system.

We've been involved in a cost-shared R&D program between the Corps and the U.S. construction industry, as well as the states, related to surface transportation. And some of these efforts include in place test tracks. For example, with the State of Minnesota we're going to have a joint test facility so we can test those designs, that design criteria, against real wear and performance in an international—or in an interstate highway system where we vary the structures, so that we can vary and determine the limits of that predictable design course.

In the materials area, I'm going to bring up a subject dear to your heart. We have demonstrated that we can increase the durability of asphalt pavements by including crumb rubber from tires. We can include—improve the safety of that surface because it also gives you an increased coefficient of friction. So we have that research completed. We're in the process of developing specifications. We've essentially concluded that a concentration of about 16 percent of crumb rubber in the asphalt with the proper asphalt and stone mixture will give—matrix mixture—will give you an increased performance.

Mr. VALENTINE. Since we are—

Dr. OSWALD. We have not answered the question that the DOT raised, and that is the—we have not answered the question regarding, is it compatible with the recycling? When we again raise it up to high temperatures, what happens to that structure when we now want to reblend it and put it down again? That's—

Mr. VALENTINE. Since we are late in the day and I'm the only member left, I think we'll—I'll take the liberty of changing the rule, and if it's—and interrupt you there as questions come up.

What arrangements—what is the plan, what is the practice, the policy to make your findings available to the private sector? How do we spread your wisdom around?

Dr. OSWALD. Okay. Well, we have, like all professionals, we have societies that we publish our papers in. We also participate very actively in standards. ASTM, ASGE the chemical or the Civil Engineering Society, the Mechanical Engineering Society, those all have vehicles by which we develop national standards. We participate

there in the developing of national standards for tests, for quality assurance, and things of that nature.

We have been working—I'm working with Mr. Clements, and we've in the past had data exchanges with the Federal Highway research group and we will continue to do that in the future.

Does that address your question?

Mr. VALENTINE. Yes, sir, it does.

Dr. OSWALD. I think some other exciting things is that we're finding that we can substitute composite, plastic composite rebars instead of steel rebars. You can imagine now what this will do for the corrosion problems that we have, as you probably see when you go home this evening, the exposed rebar, the corrosion, the lack of the bonding between that because of the impact of corrosion. We have that under development and are evaluating that and looking at that as specs for special applications. It certainly is a major part of our concept when I talk about the maglev in terms of the need for alternative structures and without the use of steel.

Let me talk about maintenance. The Corps is developing maintenance management techniques for decision support, some of which are currently being applied across the Nation, not just within the military, but across the Nation. These include states and local government. The names of some of these are, for example, Micropaver. It's a system to optimize the use of pavement repair funds. When should you repairing it and when is it most cost-effective to do that as opposed to not repair it and then have to rip it up and completely restore it? That was developed from funding jointly by the Army, Air Force, Navy, the Federal Aviation Agency, and the Federal Highway Administration.

We also have bridges associated with our military installation. So we have a system in place called Bridger, another management tool by which you can determine the load-carrying capacity of that bridge and essentially provide economic planned maintenance for the maintenance and repair of those 1,500 highway bridges in the Army inventory.

I think another relevant program that we have carried out under our civil works responsibility is a program which is entitled Repair, Evaluation, Maintenance, Rehabilitation. We have an acronym called REMR. But it's specifically intended and developed and identified effective and affordable technology for maintaining and extending the service life of our civil works structures.

Most of our locks and dams are approaching about 50-year life. There are—we as the Corps of Engineers—the Nation could not afford to go out and replace those structures. So we initiated a program about seven years ago which looked at alternative techniques to rehabilitate those structures. We've come up with a lot of those, a lot to test the integrity of those structures. I think those are directly applicable to some of the infrastructure problems we have in our concrete bridges and many of the other structures that exist in the infrastructure in our major cities, and would be directly applicable to the highway program.

I would like now to switch and talk about our role in the maglev system, which you talked about earlier. We've been involved in high speed magnetic levitated transportation, maglev, conducted under the NMI, or the National Maglev Initiative. Our major con-

tribution to maglev technology assessment has been in program planning, management, systems engineering, civil engineering, and engineering cost analysis.

I think our current assessment shows that the maglev is technically feasible today and may be economically viable in certain regions of the U.S. There is sufficient potential for maglev to, I think, justify the initiation of a phased maglev prototype development and demonstration program designed to reduce the risk and cost of that system.

The Corps-led National Maglev Initiative's efforts were directed at technical assessment, technical assessment of U.S.-developed maglev technology, and the development of and analysis of those strategies. Our major conclusions are that, from the technical assessment point of view, is that maglev could provide large trip time advantages versus the short-haul air; could carry up to 6,000 passengers per hour—thats equivalent to five highway lanes—promises low wear because there is no contact between vehicle and guideway; relatively small land requirements compared to major highway or major rail systems; would consume about a quarter to half the energy of an aircraft in 125-to-a-600-mile trip.

We are not dependent upon petroleum. We're dependent upon electricity. You, basically, are going to have significant operating costs, we think, lower and quieter than a train system by about a factor of two at 300 miles per hour and below.

I think that the U.S.-designed maglev system could provide better performance using less energy than existing foreign maglev systems and at a lower cost. We did a cost comparison of existing and proposed maglev systems, and I would say that our belief is that we could—the technology-related issues would run about $18.4 million per mile for an elevated guideway system and about $12 million per mile for a graded, on-grade guideway system. There's additional capital costs for real estate stations and things like that, which would be about a factor of two to three times that guideway cost.

The high tech business is critical to making it succeed. But once you get it there, the actual investment is only about 5 percent for the cars.

We think that a number of system innovations really require further R&D, such as the use of composite materials in the guideway structure, vehicle bodies. We need higher-power density electronic components. Certainly, we need to continue to advance the state of the art in superconductivity and cryogenic systems that are integral to those superconducting magnet systems, and key development efforts in sensor and the associated control systems for the operation and safety of those systems. Those are the areas we would focus on in development of a program.

We're planning to continue to support the Department of Transportation in any future maglev development on a cost-reimbursable basis. And I think, in conclusion, sir, we, the Corps, have a viable R&D program in surface transportation research which is based on the needs of the U.S. military, our civil works program, and the needs of the Nation.

And, with that, I would open it up to address any of your questions.

[The prepared statement of Dr. Oswald follows:]

COMPLETE STATEMENT OF
DR. ROBERT B. OSWALD, DIRECTOR
DIRECTORATE OF RESEARCH AND DEVELOPMENT
U. S. ARMY CORPS OF ENGINEERS

BEFORE THE HOUSE
COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY
SUBCOMMITTEE ON TECHNOLOGY, ENVIRONMENT AND AVIATION

AUGUST 3, 1993
2:30 P.M.
ROOM 2325, RAYBURN HOUSE OFFICE BUILDING

Mr. Chairman, I am Robert B. Oswald, Director of Research and Development for the U. S. Army Corps of Engineers. I am pleased to be here today to present testimony as requested in your letter of invitation on Corps of Engineers progress made on research and development pertaining to surface transportation, including our efforts in conjunction with the Department of Transportation on assessing the viability of magnetically levitated (maglev) train systems to meet future U.S. transportation needs. My testimony provides a brief background on why the Army Corps of Engineers has a major research and development program in surface transportation, includes discussion of Department of Defense (DOD) and Army mission related research and development, discussion of our interagency and private sector technology development and transfer efforts, and concludes with our recent maglev efforts in cooperation with the Department of Transportation.

BACKGROUND

The Army Corps of Engineers has been heavily involved in implementation of surface transportation systems and the related research and development since before World War II. However, World War II increased these efforts in support of both the military and civilian sectors. A key was the need to design and construct air bases for significantly heavier bombers and other aircraft, such as the then new B-29, and the need to develop roadway pavements for tandem vehicles carrying increasing payloads. By the end of the war, more than 1,100 military and civilian airports and thousands of miles of roadway had been designed and constructed to meet these needs. This required new and improved methodologies and materials in both airfield and roadway design and construction.

Since World War II, as the engineer for the Army and the construction agent for the Air Force and in some areas the Navy, one of the Corps missions has been the design, construction, maintenance, repair, and evaluation of concrete, asphalt, and unsurfaced roadways. The research and development phases for this mission are driven by performance factors, economic factors, and more recently environmental and energy savings factors. Some specific transportation needs include the technologies and techniques required by the Army and DOD for evaluation, construction, repair and rehabilitation of the infrastructure required for deployed force movement and sustainment of deployed forces around the world. We address technology application in environmental extremes from Antarctica and Alaska to the deserts of Israel, Egypt and Saudi Arabia. Natural non-DOD customers in these efforts have been and continue to be the Department of Transportation's (DOT) Federal Highway Administration (FHWA) and Federal Aviation Administration and the Department of Agriculture's U.S. Forest Service, among others.

DOD has 1.4 billion square yards of pavement in place today at an estimated replacement value of $85 billion. The annual budget for maintenance and construction of pavements within DOD is nearly $600 million. About one-third of the pavement is in 34,000 miles of paved highways (equivalent to 75 percent of the nation's interstate mileage). The remainder are in facilities for 400 Army, Navy and Air Force airfields in the United States and 200 additional airfields overseas.

DOD laboratories historically involved in pavements research are the U.S. Army Engineer Waterways Experiment Station (WES), Vicksburg, MS; the U.S. Army Cold Regions Research and Engineering Laboratory (CRREL), Hanover, NH; the U.S. Army Construction Engineering Research Laboratory, (CERL), Champaign, IL; the Air Force Civil Engineering Support Agency (AFCESA), Tyndall AFB, FL; and the U.S. Naval Civil Engineering Laboratory (NCEL), Port Hueneme, CA. This includes one of the most comprehensive arrays of pavement research facilities and the only large-scale cold climate pavement test facility in the United States.

As a result of the Secretary of Defense Cheney's initiative to improve the efficiency and productivity of DOD's Research, Development and Acquisition process, the Army Corps of Engineers has been designated as the lead agency for all roadway research. Areas of research include materials, equipment, methods of design, construction techniques, maintenance and repair processes, and weather-related modeling of rigid and flexible pavements. The goal of our pavements research is for increased durability and lower life cycle costs.

MISSION SPECIFIC PAVEMENTS RESEARCH

Past and current research and development efforts for surface transportation needs is diverse. Some of the most obvious subjects include pavement materials and mix design, thickness design and construction methods. A few of the less obvious, but just as critical, subjects include:

o Development of a pavement management system for tracking the costs and performance of a project throughout its life cycle;

o Development of new design criteria that will address such problems as increased axle spacing, and higher tire pressures;

o Development of non-destructive testing methods to gain information on pavement conditions rapidly without direct interference with the operations of the facilities;

o Development of new less costly methods of pavement repair that meet required performance standards; and

o Development of more efficient construction equipment and methodologies such as the environmentally safe Microwave Recycling Paving Train.

Some of the Corps ongoing research and development directly focused on surface transportation areas include:

Dynamic Loading and Response: Current pavement design procedures for rigid and flexible pavements characterize the loads applied to the pavement as "static" or non-moving, a simplistic and often conservative assumption, especially when the response of pavement materials to dynamic loads are taken into consideration. This research will determine the basic features of a vehicle, its movement, and its interaction with the pavement surface, and will develop a dynamic loading model that can be used in pavement analysis or design models to better understand and predict the behavior and performance of pavement structures under various loading conditions. Resulting methods of analysis are expected to provide the basis for accurate performance predictions and life of pavement for innovative or optimized pavement systems.

Asphalt Concrete Modification: The objective is to develop and validate the methodology for design and quality testing of modified asphalt concrete pavement mixtures to compensate for deficiencies having an adverse effect on pavement performance. Asphalt modifiers exist that will improve pavement performance and reduce deterioration, but there are no standard mixture design methods for quality test methods that allow for proper construction and evaluation of modified pavements. Laboratory test methods will be developed and validated for incorporation into mixture design criteria and field performance predictions.

Comparative effectiveness of each asphalt modifier will allow the user to choose the most effective modifier when more that one material is recommended as a possible cure for a problem. The results of this research will allow use of waste materials and non-traditional pavement materials that will reduce cost and enhance the environment.

Failure Mechanisms for Cohesionless Materials: Many of the failures that occur in pavements can be attributed to failure in the base courses. Models of these cohesionless layers will be developed that describe the failure mechanisms. These models will be applied to actual pavement data to explain and define when failure can be anticipated. The basic research effort will be followed with an applied effort to validate the selected models. Ultimately, failure criteria for cohesionless materials that are used for base and subbase courses in both airfield and highway pavements will be developed and can be expected to provide more cost effective pavements.

Reliability/Probabilistic Pavement Design: Predicting pavement performance is a very difficult task and is complicated by the variation in soil (subgrade) and pavement layer materials properties, the variability in the applied loads, and the variability in climatic factors that occur over the expected life. The objective of this investigation is to develop a pavement design method that considers the variability of the basic input data, the variability of the performance data, and variability of the expected load applications to allow the designer to estimate performance based on a user defined allowable risk assessment. By improving prediction of performance, better choices can be made in the initial design to improve cost over the life of the pavement.

Moisture Migration: The accumulation of moisture in the pavement foundation is critically important because it has a major impact on the pavement's engineering properties. This research will examine the changes in strength, resilient response, and plastic deformation that occur as moisture content increases from molding moisture contents to saturation. These results could yield greatly reduced pavement thickness and costs without a sacrifice of performance.

Pavement Systems Performance in Cold Regions: Non-destructive methods and procedures for evaluating the performance of pavement systems in cold regions will be developed. Techniques for rapidly surveying pavement roughness due to frost heave and pavement weakening due to thawing will be developed. Techniques for efficiently determining subsurface conditions will also be developed and analytical procedures for determining the spatial variability of subsurface conditions and relating them to surface phenomena will be established.

Maintenance and Repair of Pavements and Unsurfaced Areas in Cold Regions: This effort will develop and provide criteria for selecting long-life materials for the maintenance of pavements and unsurfacsd areas in cold regions. Emphasis of the pavement studies are : (a) the use of rubber from scrap tires in asphalt concrete, base course, and subgrade materials, and (b) the selection of crack and joint sealants for asphalt and portland cement concrete pavements, which, for successful low temperature sealing, require the use of specially formulated sealants that do not harden and fail.

Innovative Pavement Materials for Cold Regions: Evaluations will be conducted on new pavement materials (such as asphalt cement modifiers, rubber aggregates, open graded and free-draining base courses, geocomposite drainage materials, etc.) different pavement geometries (i.e., vertical placement of edge drains) and their performance under conditions of freeze/thaw. A lab test procedure will be developed to determine the horizontal permeability of the base courses. The use of moisture sensors to determine moisture content will also be evaluated.

Surface Ice-Detection Techniques: Being able to detect ice foreation on road surfaces and warning approaching vehicles is an important safety feature. This study is to identify equipment and techniques that can be used to identify the process of ice accumulation, the rate of accumulation, and the type of ice. Ice accumulation of both fixed structures and material will be considered.

Maintenance Management Tools: Maintenance management is a critical item. To meet this need, the Corps has developed or is developing decision support technology, some of which is being applied across the nation. These efforts include:

Micropaver - The Micro PAVER Pavement Management System is designed to optimize the use of pavement repair funds. The system, which uses state-of-the-art management techniques, was developed through funding from the Army, Air Force, Federal Aviation Administration and Federal Highway Administration. An important factor in optimizing the use of pavement repair funds is the pavement condition, which is determined by using the Pavement Condition Index (PCI). The PCI provides a consistent measure of a pavement's structural integrity and operational condition based on observable stress. PCI procedures for roads, parking lots, and airfield pavements have been developed. The Micro PAVER program and training courses are available through distribution centers located at the University of Illinois at Urbana-Champaign and with the American Public Works Association. Micro PAVER subscribers include cities, universities, consultants, airports, and others.

Bridger - The Bridger engineered management system is being developed to help manage maintenance and repair on some 1,500 highway and railroad bridges in the Army inventory. The Bridger system will include a standard procedure for collecting inventory and inspection information from highway, railroad, and pedestrian bridges. From this information, the computer program will determine condition ratings tied to current practices by the American Association of State Highway and Transportation Officials, military bridge rating requirements, and railroad Cooper E ratings. The condition ratings will be correlated with previous bridge ratings and mission requirements. Maintenance alternatives and costs can then be examined and compared with potential improvements in bridge condition and load-carrying capacity.

RELATED RESEARCH EFFORTS

The Corps of Engineers also has research programs underway that support other mission areas that will likely have applicability to surface transportation needs. One significant program is the Repair, Evaluation, Maintenance and Rehabilitation Research (REMR) Program. The overall objective of the REMR Research Program is to identify and develop effective and affordable technology for maintaining and extending the service life of Corps Civil Works structures. Although the REMR Program is not conducting research on pavements, some examples of technology developed or under development which might find applications in surface transportation systems are:

a. Non-destructive Testing Techniques for Concrete.

b. Underwater Concrete Structure Repair.

c. Coatings and Sealants for Concrete Surfaces.

d. In-Situ Repair of Concrete.

e. Concrete Maintenance and Repair Materials Data Base.

f. Geophysical Techniques for Foundation Assessments.

g. Underwater Applied Coatings for Metal Structures.

h. High-solids Coatings for Metal Structures.

i. Predicting Concrete Service Life.

j. Removal of Lead Pigmented Paints from Structures.

A research/demonstration effort under the Facilities Engineering Applications Program will demonstrate a product that its manufacturer claims will stabilize the leachable lead in waste blast abrasive. The product is an abrasive blast media additive. It could lower the cost of waste lead paint disposal by up to 85 percent if it is demonstrated successfully. This savings would come from being able to dispose of the waste in a regular landfill versus one designated as a hazardous waste facility. While the abrasive blast additive is being demonstrated on an elevated steel water tank, it would be appropriate for use on bridges and other civil works structures.

TECHNOLOGY DEVELOPMENT/TRANSFER EFFORTS

CONSTRUCTION PRODUCTIVITY ADVANCEMENT RESEARCH (CPAR) PROGRAM - CPAR is a cost-shared research and development partnership between the Corps and the U.S. construction industry (which includes contractors, equipment and material manufacturers and suppliers, architects, engineers, financial organizations, and others), trade associations, academic institutions, professional societies, public and private foundations, non-profit organizations, state and local governments and other entities who are interested in construction productivity and competitiveness. CPAR was created to help the domestic construction industry improve productivity and regain its competitive edge nationally and internationally by building on the foundation of the existing Corps construction research and development program and laboratory resources through the expansion and leveraging effect that cost-shared partnerships provide.

The program is being conducted within existing Corps missions and authorities of the Water Resources Development Act of 1988, P.L. 100-676, 33 USC 2313, and the Stevenson-Wydler Technology Innovation Act of 1980, as amended, 15 U.S.C. 3710a et seq. Fifty-seven CPAR projects have been jointly funded since the program began in 1989. The Corps' contribution under CPAR has been $17.7 million with a total industry contribution of $29.4 million. The objective of CPAR is to facilitate productivity improving research, development and application of advanced technologies through cooperative Research and Development, field demonstration, licensing agreements and other means of technology transfer. I will summarize several of the major CPAR projects followed by a list of all the current CPAR projects that relate to surface transportation.

Road Construction in Seasonal Frost Areas: A major project is our work with the Minnesota Department of Transportation to evaluate performance of various pavement designs and surfaces in seasonal frost areas. Jointly we have selected pavement cross-sections and instrumentation to be used in Minnesota/ROAD, which

consists of about forty 500-ft-long test sections. About one-half of these sections are on a heavily travelled interstate highway and the other half are on a closed loop "Low Volume Road" that will be subjected to controlled traffic and loads. The Low Volume Road portion of the study consists generally of "thinner" pavement sections. Surface courses include asphalt concrete, Portland cement concrete, and unbound aggregate (only on the Low Volume Road). Construction of Minnesota/ROAD was completed during 1992. We have used a preliminary version of a mechanistic pavement design procedure for seasonal frost conditions to predict the expected performance of some of the test sections. The resultant product of this joint effort will be improved criteria for the design and construction of more durable and less expensive roads in seasonal frost areas.

Asphalt Rubber Binders: The Waterways Experiment Station, conducted a joint 2-year research study on Asphalt Rubber Binders and Mixes with the Asphalt Rubber Producers Group under the Corps CPAR Program. Individual studies of differing research areas were also conducted with several agencies; the University of Nevada-Reno, the University of Arizona, International Surfacing, Inc., and Crafco, Inc. The study efforts include:

- Physical Properties and Aging Characteristics of Asphalt-Rubber Binders
- Tensile Creep Comparison of Asphalt Cement and Asphalt-Rubber Binders
- Comparison of Mix Design Methods of Rubberized Asphalt Concrete Mixtures
- Permanent Deformation Characteristics of Recycled Tire Rubber Modified and Unmodified Asphalt Concrete Mixtures
- Low Temperature Cracking Characteristics of Ground Rubber and Unmodified Asphalt Concrete Mixtures
- Fatigue of Asphalt and Asphalt-Rubber Concretes
- Asphalt-Rubber Open-Graded Friction Courses

Fiber-Reinforced Plastic Rebar: A CPAR project between the Corps and West Virginia University will demonstrate a full-scale concrete bridge deck reinforced with fiber-reinforced plastic composite rebar. The objective is to show the advantages of using specially designed fiber-reinforced plastic (FRP) composite rebars to improve construction productivity and long-term system durability (corrosion resistance) of reinforced concrete bridge decks and other structures. FRP composite rebars are lightweight, durable, noncorrosive, and magnetically inert. They are ideal for a number of applications that can benefit both the

Corps of Engineers and the private construction industry. They will be demonstrated by constructing a bridge deck in West Virginia. Also participating in the CPAR project are the West Virginia Department of Transportation and International Grating, Inc., of Houston, TX.

Improving Construction Productivity through Integration of Real-Time Position Measurement with CAD/CAE: This three-year project will develop and demonstrate a system for improving construction site productivity that integrates line-of-sight real-time position measurement and CAD/CAE technology. Surveying and position-measuring hardware systems will be evaluated and integrated with innovative software to provide single-person measurement capability, characterized by millimeter level accuracy, that can be used to provide accurate real-time measurement of cut, fill and compaction quantities, and provide input to as-built drawings through the CAD/CAE interface. Use of the system is expected to reduce construction time by an estimated 5% and construction costs by 15 to 20%.

Other CPAR Surface Transportation-Related Projects

Project Title	Industry Partner
Stabilization of High Plasticity Clay Soils Using Discrete Identification Polypropylene Fibers	Synthetic Industries Chattanooga, TN
Improved Materials for Sealing and Resealing Joints in Pavements	Crafco Inc. Chandler, AZ
Application of Roller Compacted Concrete (RCC) Technology to Roadway Paving	The Pennsylvania State University University Park, PA
Microwave On-The-Go Hot Recycling Process	Cyclean, Inc. Georgetown, TX
Rapid Method to Determine Freeze-Thaw Resistance of Aggragate	Michigan Dept. of Transportation Lansing, MI
Quality Control of Concrete by Heat Signature Methods	Digital Site Systems,Inc. Pittsburgh, PA
Polymer Injection/Ultrasonic Pulse-echo (UPE) System for Concrete Bridge Repair	WES/Univ. of Nebraska-Lincoln

Vitrification and Removal of Lead-Base Paint	CERL/SUNY-Stony Brook
A New Radar System for Diagnosing Quality and Condition of Concrete	WES/University of the Illinois
Predicting Bearing Capacity of Piles Installed With Vibratory Drivers	WES/University of Wisconsin
Automated Thermal Spray Technology (TST) for Rehabilitation and Maintenance of Civil Works Infrastructure	CERL/Research Foundation of SUNY
Research, Development and Commercialization of a Ballistic Soil Nailing System	WES/Soil Nailing Limited (America)
Freezing-Temperature Protection Admixture for Portland Cement Concrete	Master Builders, Inc.
Use of A High-performance Blended-cement System in Concrete Construction	Lone Star Industries
Computer Software for On-Line Process Control of Portland Cement Concrete Production	Shilstone Software Co.
Development and Use of Corrosion Resistant Modified Sulfur Concrete Structural Components	National Chempruf Concrete, Inc.
Composite Cables for Prestressing in Concrete Waterfront Structures	South Dakota School of Mines and Technology

TRADITIONAL TECHNOLOGY TRANSFER - We have established working relations with over twenty-five major universities in the pavements area to share and coordinate research activities. The Corps is an active member of the Federal Laboratory Consortium and participates in promotion of technology transfer within the Federal Government and also the private sector. Specific R&D coordination linkages with the major federal, state and private pavement research organizations have been established and actively used.

A major example of technology transfer effort is the Corps developed family of pavement management systems noted earlier, including the pavement condition index (PCI) for airports, PCI for roads, and Micro PAVER. Through a cooperative effort with the American Public Works Association and the University of Illinois, these systems have been transferred into practical use. The PCI for airports has been adopted by most airport agencies worldwide, including those for the Air Force, Navy, Army, and

Federal Aviation Administration. It was recently published as a standard test method of the American Society for Testing and Materials (ASTM). The PCIs and Micro PAVER are currently being used by hundreds of military installations, cities and counties, consulting firms, and universities. They are also being used by many foreign countries. In addition, some state highway departments have capitalized on PAVER technology in the development of their customized pavement management systems. The San Francisco Metropolitan Transportation Center (MTC) has developed a pavement management system for implementation in over 100 cities and counties in the bay area based on PAVER.

Our traditional efforts in technology and information transfer include:

- o Engineering Technical Letters (ETL's)
- o Engineering and Field Manuals (EM's and FM's)
- o Guide Specifications
- o Criteria Document Updates
- o Technical Reports and Miscellaneous Papers
- o Technical Conference Papers and Professional Journal Articles
- o Training Courses and Workshops
- o Cooperative Research and Development Agreements
- o Interaction with National Professional Societies

We continue to work with our traditional customers, the Transportation Research Board and other agencies. We are going beyond the traditional methods of technology transfer and are working directly with the Federal Highway Administration (FHWA) to coordinate the overall pavements related research program of both agencies. I will be meeting this month with Mr. Clement of FHWA to continue our cooperative research activities.

REIMBURSABLE SUPPORT FOR OTHERS

In addition to the Corps direct mission responsibilities and support to other DOD agencies, the Corps of Engineers does R&D in support of other organizations. The testing facilities at the Corps of Engineers are used by the National Academy of Sciences, National Cooperative Highway Research Program, Federal Aviation Administration, Federal Highway Administration, Federal Railroad Administration, U.S. Forest Service, National Aeronautics and

Space Administration, and State Department. The support to others has provided synergism with the Corps direct-funded research and a direct technology transfer vehicle for newly developed technology to customer specific needs. Reimbursable support represents approximately two-thirds of the Corps total Surface Transportation related R&D program.

The work for others includes the areas of construction management, cold regions testing, aggregates, vehicle-terrain interaction, construction materials testing and characterization, repair and construction of roads, soil mechanics, membranes and fabrics, and analytical capabilities.

MAGNETICALLY LEVITATED TRAIN SYSTEMS (MAGLEV)

Now, I would like to address the Corps efforts in high-speed magnetically levitated transportation (maglev), conductad under the National Maglev Initiative (NMI). The NMI is an interagency maglev assessment/research program jointly managed by the Administrator of the Department of Transportation's Federal Railroad Administration (FRA) and the Assistant Secretary of the Army for Civil Works (ASA(CW)), and supported by other Federal agencies. The NMI objective is to investigate the technical and economic potential of maglev to meet future U.S. transportation needs. The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 reflects the management structure established by the NMI and provides for a jointly managed national maglev prototype development program.

The Army's involvement in maglev assessment/research began under direction and funding provided in the Energy and Water Development Act of 1990. Additional authority was provided in the Water Resources Development Act of 1990, with continued funding included in subsequent appropriations through FY 1993.

The Corps' major contributions to maglev technology assessment have been in program planning and management, systems engineering, civil engineering and engineering cost analysis. One of the major objectives of the NMI was to encourage the participation of U.S. industry in maglev technology. Consequently, about 55 percent of the $13.8 million appropriated for the Corps' NMI work went to the private sector in the form of contracts for technology assessment/research and technical support.

A maglev system may be economically feasible in certain high density intercity corridors. Maglev's potential benefits justify initiation of a prototype development program, provided such a program includes decision points to hold risks at an acceptable level. Clearly, an important thrust during the prototype program would be to find ways to reduce costs.

The NMI program has concluded that the potential economic and public benefits from U.S. based maglev system are sufficient to justify initiation of Phase I of a prototype development program. During the development program, the remaining technological, economic, and environmental questions would be fully addressed.

The Department of Transportation led the economic assessment and market effects analysis efforts under NMI. They will address the conclusions reached under those efforts. The Corps led the multi-agency team efforts directed at technical assessment of U.S. developed maglev and analysis of development strategies. The major conclusions of the technical assessment are as follow:

- Maglev promises an initial operating speed of 300 mph, with development likely to produce economical operations in excess of 500 mph. Though technically capable of speeds in excess of 300 mph, a century of development has pushed HSR to a current economic speed limit of about 190 mph.

- Maglev could provide significant trip-time advantages over short haul air under 300 miles because of comparable speed and shorter access and egress times. Nonstop maglev trip-time is comparable with nonstop air to about 500 miles and one stop air to about 1,250 miles.

- Short maglev headway (time between units) allows very high capacity. A dual guideway could handle 12,000 passengers per hour in each direction, the equivalent of sixty 767's an hour in each direction or five interstate lanes in each direction.

- With no physical contact between vehicle and guideway and evenly distributed loads possible, maglev promises potential for low wear and maintenance compared to high-speed rail with physical contact, high point loads and high stresses between wheel and rail.

- Maglev's lower susceptibility to weather and its non-contact propulsion, levitation and braking would enable continued operation under more extreme weather conditions than both air or high-speed rail.

- Maglev's relatively small "footprint" (i.e. land requirements) would reduce environmental impacts compared to other surface transportation technology and enable it to use existing rights of way, where prudent. Maglev can easily be elevated to pass over terrain obstructions and intersections with other transportation systems, enhancing safety.

- Maglev would consume one quarter to one half the energy of a 737-300 for a 125-620 mile trip, based on comparable passenger density, applying electrical conversion factors expected to be typical of power plants in the year 2010, and assuming the potential maglev improvements are attained.

- Maglev is not dependent on petroleum.

- Maglev offers significantly lower operating costs compared to other alternatives with its high capacity, low energy consumption and low maintenance.

- Absence of wheel-rail and pantograph-catenary contact enable maglev to travel 25 percent faster before reaching peak noise limits in urban areas compared to high-speed rail. Although this advantage decreases as speed increases, maglev is still 5-7 dB quieter than high-speed rail at 300 mph.

A U.S. designed maglev could provide better performance using less energy than existing maglev at lower cost. Potential advantages of a U.S. based improved maglev design include:

o The use of locally commutated linear synchronous motor, which allows energizing only those motor coils in the vicinity of the maglev vehicles, thereby promising significant increase in energy efficiency of maglev propulsion.

o Significant improvement over existing technology while transiting existing highway and rail rights of way through the addition of tilt suspension and greater acceleration. Compared to existing technology, a U.S. maglev at cruising speeds of 300 mph would require about half the curve radius, climb grades five times steeper at full speed and accelerate to 300 mph in about half the time, all of which contribute to shorter trip times.

o Use either magnetic forces or aerodynamic surfaces for active vehicle suspension. Coupled with greater levitation gap, active suspension can provide a smoother and safer ride over flexible or rough guideways. This promises more economical structures with less stringent and less costly construction tolerances.

o Use the stator windings of the linear synchronous motor as inductive generators for transfer of auxiliary power to the vehicles, eliminating the need (and weight) for on-board power supply or large battery banks.

o Use cable-in-conduit niobium-tin superconducting magnets with single phase refrigeration. This concept allows higher operating temperatures (about 8 degrees K), much lower

refrigeration loads and reduced danger of coolant flashing or evaporation, which is much better suited for the rugged transportation environment.

o Use fiber reinforced plastic (FRP) as reinforcing for concrete in structural members exposed to high magnetic fields. Although an emerging technology, FRP promises distinct advantages over conventional steel reinforcing, such as a high strength to weight ratio, high corrosion resistence, a high stress failure limit and a broad application beyond maglev.

o U.S. designed vehicles employing U.S. aerospace experience will have lower weight and mass (18 percent lighter) than existing technology contributing to lower trip times and reduced energy consumption. Also, use of aerospace composite materials offers superior fatigue and corrosion resistance compared to conventional materials.

o One proposal's use of an innovative spine-girder dual guideway design with a central spine supporting slender guideways along either side on outriggers promises efficient use of material and reduced cost.

o Use of electromagnetic switches, promising shorter switch cycles, no moving parts, lower maintenance, lower susceptibility to snow, ice and dust, and higher transit speeds.

o Several U.S. concepts provided magnetic lift to drag ratios greater than 100, promising low energy consumption, low lift-off speeds, and high psyload to weight ratios.

In addition to the technology review, the Corps also contributed to NMI by analyzing the costs of existing and proposed U.S. maglev systems. The Corps took cost data for all the concepts and standardized them by using consistent parameters, unit prices and adding contingencies. Site specific costs such as real estate, stations, ancillary facilities, and so on, were not included in order to compare the four major components of the technology costs shown below. These technology related costs were about $18.4M and $12.5M per mile for elevated and at-grade guideways, respectively.

The breakdown by subsystem in terms of percent of average total technology costs (less vehicle costs) are as follows:

Subsystem	Percent of Total Technology Costs	
	Elevated	At/On Grade
Guideway Structure	52	29
Guideway Magnetics	26	38
Power Distribution	15	22
Wayside Control & Communication	7	11

The total capital costs for constructing these concepts in specific corridors were determined by the Volpe National Transportation Systems Center. Based on their work, the total capital costs may be on the order of 2 to 3 times the technology related costs.

There were a number of innovative features of the system concepts that warrant further R&D. Items with high potential include the use of composite materials in the guideway structure and vehicle bodies, high power electronic components, superconducting magnets, cryogenic systems and sensor systems. A supporting R&D program would minimize the technical and schedule risks that are inherent with new materials, components and designs. As the risks are reduced, the total costs associated with these new concepts should decrease.

The Corps of Engineers is currently completing further research with academia in several areas. One area is the use of composite materials in guideway structures. The lightweight, high strength properties of these materials make them attractive for minimizing guideway cross-sections. In addition to the potentially lower costs, it is important to understand how these materials are to be used and how they will perform over the projected 50 year life of the structures. As seen from the table above, cost implications for the guideway structure have important implications for the total system cost, particularly with the elevated structures.

Another area being investigated is that of innovative, economical guideway construction methods. New methods for constructing guideways, particularly in existing rights-of-way

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must be developed. Minimizing the guideway construction costs will significantly affect the cost of the systems.

The Corps of Engineers is proud to be a contributor to this exciting technology. We plan to support the Department of Transportation in any future maglev research, on a cost reimbursable basis. The Army recognizes the intense challenge of developing a new transportation technology for the future at a time when our Nation faces tough economic decisions. The high psyoff from the research I have described above will contribute to maglev technology across the board by reducing risk in emerging maglev technologies, reducing the cost of future transportation and positioning U.S. industry to compete in these technologies globally.

CONCLUSION

We, in the Corps, have a viable R&D program in surface transportation research which is based on the needs of the military and civil works missions of the Corps. Its application and complementing nature to civilian government requirements is evident and is the impetus for information and technology sharing. This is an area we continue to strive to improve.

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Gene R. Morris[1]

TRUE COST EFFECTIVENESS OF ASPHALT-RUBBER PAVING SYSTEMS

REFERENCE: Morris, G. R., "True Cost Effectiveness of Asphalt-Rubber Paving Systems," Use of Waste Materials in Hot-Mix Asphalt, ASTM STP 1193, H. Fred Waller, Ed., American Society for Testing and Materials, Philadelphia, 1993.

ABSTRACT: Asphalt-rubber is a material developed in the late 1960's and which today is being used on a worldwide basis in numerous types of pavement rehabilitation systems. The cost of the asphalt-rubber as a binder in either spray applications or hot mixed concrete is 3 to 4 times the cost of conventional asphalt cement. Because of these high material costs, many engineers believe these materials are only economical when life costs are considered. Further, some authors have written reports comparing costs of asphalt-rubber systems to conventional rehabilitation methods ignoring the basic applications of these materials. This paper presents various rehabilitation systems and case histories where asphalt-rubber has been shown to be economical on both first cost and life cost analysis.

KEYWORDS: Asphalt-rubber, pavement systems, asphalt-rubber concrete, seal coats, interlayers, SAM, SAMI, cost analysis.

BACKGROUND

The initial development of asphalt-rubber began in the mid 1960's when Charles McDonald, then City of Phoenix Materials Engineer, began searching for a method of maintaining pavements that were in a failure condition as a result of fatigue cracking. McDonald's early efforts resulted in the development of small, prefabricated asphalt-rubber patches that he called "Band-Aids". These patches were generally 24" x 24" (0.61m x 0.61m) and consisted of asphalt-rubber placed on paraffin coated paper with 3/8" (9.5mm) chips embedded.

Recognizing that fatigue cracking generally occurred in larger areas than small patches could handle, the concept

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was extended to full pavement sections by spreading the asphalt-rubber with slurry seal equipment followed by aggregate application with standard chip spreaders.[1] This process had two distinct construction problems. First, in order to achieve the desired reaction of the asphalt and crumb rubber in the limited time available in the slurry equipment, it was necessary to employ asphalt temperatures of 450°F (232°C) and higher. Second, the thickness of the membrane varied directly with the irregularity of the pavement surface. This resulted in excessive materials in areas such as wheel ruts and insufficient membrane thickness in between.

In 1968, technology had developed to the point that standard asphalt distributor trucks were employed to apply a uniform thickness of binder to the pavement. Although problems with distribution and segregation of materials were encountered on the early projects, these were recognized as primarily equipment limitations. Within the next few years equipment was developed with pumping, metering and agitation capabilities needed to handle the highly viscous asphalt-rubber materials.

Since these early developments, various uses of asphalt-rubber have been employed and several asphalt-rubber pavement systems have emerged. During the past twenty plus years, knowledge of asphalt-rubber material characteristics and quality control procedures have also progressed. Although there is still much to learn, technology and equipment have developed to the extent that asphalt-rubber can be designed and constructed with a level of confidence at least equivalent to standard paving procedures.[2]

This development period of over twenty years has not been smooth; it has included numerous failures and at least an equal number of highly successful projects. Most of the failures can be traced to insufficient technology, over-selling, lack of quality control, or resistance of the highway community to adapt use of unconventional materials.[3] The private companies involved in asphalt-rubber were relatively small and either did not recognize the need for development of technology or did not have the resources to finance such development. In more cases than one would like to acknowledge, the level of engineering competency applied to project design and construction has been woefully inadequate. In spite of these birthing pains, use of asphalt-rubber has spread worldwide. The technology has developed to provide an array of pavement systems that, when properly employed by the engineer, can result in significant initial and long term cost effectiveness. This paper will address the cost effectiveness of various asphalt-rubber paving systems.

Over the past several years, numerous authors have reported on the performance of asphalt-rubber, particularly the application of asphalt-rubber seal coats (Stress Absorbing Membrane, SAM) and asphalt-rubber interlayers (SAMI).[4] [5] [6] [7] [8] [9]

In the last two or three years, others have prepared reports analyzing cost benefits of asphalt-rubber systems based on the previously noted performance reports. Most of these reports have ignored some very basic considerations, thus their validity is highly questionable.[10] [11] [12]

SPRAY APPLICATIONS

The opening paragraph of this paper noted that Charles McDonald developed asphalt-rubber as a result of his search for a maintenance procedure to rectify fatigue cracking. The reason McDonald initiated this search was that no economical method of dealing with fatigue cracking existed at that time. The only viable methods available were either reconstruction or a thick overlay, neither of which were cost effective. The early experimental projects utilizing asphalt-rubber were all placed on pavements that were scheduled for reconstruction. The possible use of standard seal coats or thin overlays as a rehabilitation technique for these pavements had already been considered and rejected as a viable procedure.[13]

Typical of these early projects are the first three projects constructed by the Arizona Highway Department (ADOT). The first asphalt-rubber spray-applied by a distributor truck was placed on the ramps of the Black Canyon Freeway (I-17) in Phoenix, between Van Buren and McDowell in August of 1968. The pavement of these ramps exhibited severe fatigue cracking, considerable shrinkage cracking, and was beginning to pot hole. This location was chosen because reconstruction was already planned and budgeted and therefore, total failure of the experiment would not impose a significant problem. Although numerous problems occurred during construction, the performance of this SAM was extraordinary. It lasted 19 years with virtually no maintenance and was finally reconstructed in conjunction with freeway re-alignment.[14]

The second project constructed by the highway department was a six mile section of U.S. 60 - 70, approximately 90 miles northwest of Phoenix at Aguila. In 1972, this highway was carrying all of the traffic now carried by I-10. The pavement exhibited severe fatigue failure and although the pavement cross-section was still relatively uniform, pavement cracking level in this old, brittle mix was 100%. Again, this pavement was already scheduled for reconstruction. An asphalt-rubber chip seal was placed in June 1972. Subsequently, to improve rideability, a 1/2" (12.7mm) open-graded asphalt-concrete friction course was placed in 1976 (becoming a SAMI) and the pavement is still in service with minimal maintenance to date.[6]

The third project was constructed in 1973, on U.S. 89 north of Flagstaff, Arizona, between Townsend and Divide. In this case, reconstruction funds were unavailable and the District Engineer advised the State Engineer that he could not hold the pavement through the winter. Flagstaff is at 7,000' (2,134m), elevation and experiences severe climate conditions

with winter time temperatures down to -30°F. An asphalt-rubber chip seal was placed hoping to hold this pavement for eighteen months until reconstruction funds would become available. The project was finally rebuilt twelve years later in conjunction with realignment and widening to four lanes.[6]

These three projects all have one thing in common. Alternate rehabilitation techniques short of reconstruction or thick overlay were not even considered as viable alternatives. Yet every one of the authors has attempted to compare performance and cost effectiveness of asphalt-rubber constructed on totally failed pavements to chip seals and thin overlays constructed on sound pavements.

On all of these projects, the conclusions were that asphalt-rubber seal coats were effective at controlling fatigue cracking but were ineffective in controlling shrinkage cracking or low temperature cracking. It was observed however, that those cracks that reflected through were generally narrow, did not spall, and did not require extensive maintenance.[6] [9]

Since these early experiments, hundreds of asphalt-rubber chip seals have been placed to preserve totally failed pavements until such time as funds were available for reconstruction. Many of these pavements are still in service after twenty years with virtually no maintenance required.[13] It should be noted that most of these pavements were severely cracked because of extreme hardening (oxidation) of the asphalt concrete. Local areas of based failure were usually corrected. If one is to perform a realistic cost analysis of this system, the only comparison that can be made is of asphalt-rubber SAM versus new construction or at least the amortized cost of new construction. To compare the cost to a standard seal coat or a thin overlay, neither of which were viable alternative treatments, is not only wrong but in fact ludicrous. The cost of asphalt-rubber SAM is obviously less than reconstruction or a thick overlay.

Even if we consider those asphalt-rubber SAMs placed on roadways that exhibited some cracking but were not yet candidates for reconstruction, the various cost analyses presented are lacking. In Arizona, for example, the criteria for using a SAM or SAMI was that any pavement with more than 10% cracking, should be considered a candidate for a membrane.[13] If a standard chip seal was placed on a pavement with 10% cracking, its expected life with respect to reflective cracking would be at best one year. If reflective cracking is not the criterium for the need of a seal coat, then asphalt-rubber should not be used. However, if reflective cracking is the criterium then certainly the cost analysis should compare asphalt-rubber seal coats to the life of a standard seal coat placed on a badly cracked pavement.

Now, let's examine the other extreme of possible asphalt-rubber application - that of a SAM placed on new or sound, uncracked pavement. In this case if only the life of the seal coat is evaluated then it is correct that the asphalt-rubber

would have to exhibit twice the life or more of a standard seal coat in order to be cost effective. However, there is another extremely important consideration that should be included in the cost evaluation. Asphalt pavements crack and/or ravel because either the tensile strength or the tensile strain characteristics of the material have been exceeded. Rarely do new properly designed asphalt pavements crack. The failure generally occurs after the asphalt has aged to a level of stiffness such that a brittle failure occurs. If the asphalt in the pavement maintained its original material characteristics, then both fatigue and thermal types of failures could be greatly delayed. It has been shown in long term field performance that an asphalt-rubber membrane virtually eliminates aging of the pavement below. An analysis of 13" thick pavements with and without membranes at Sky Harbor Airport in Phoenix, showed that the pavement protected by the membrane experienced virtually zero oxidation while the viscosity of the asphalt in the unprotected pavement increased from 2,000 poises to over 200,000 poises.[15] Similar results were obtained by the Arizona D.O.T. from the analysis of an I-17 pavement south of Flagstaff, Arizona. If one is to properly evaluate the worthiness of an asphalt-rubber seal coat (SAM) as compared to a standard seal coat, then certainly this extension of life of the underlying pavement is a valid cost consideration. For example if the life of a 2 inch (51mm) thick pavement was extended for even 5 years then the initial increased cost of the asphalt rubber seal coat would be justified.

None of the authors have addressed this very real cost consideration in their analyses although some have made rather vague mention of it.

One other factor that has influenced the opinion of many state agencies on the performance of asphalt-rubber SAM & SAMIs was the use of these systems to control reflective cracking emanating from low temperature transverse cracks in the existing pavement. Perhaps these agencies were oversold by zealous salesmen. However, reports published by the Transportation Research Board as early as 1976, clearly[13] state that SAMs are not effective at controlling reflection of transverse cracks and that SAMIs are only somewhat effective. I firmly believe that systems can be developed to control reflection of low temperature cracks but it will take more extensive pavement preparation and multi-layered systems to accomplish this objective.

One specific application of SAMI is the three layer system developed for use as a thin overlay of portland cement concrete pavements. This system consists of a thin leveling course (1/2") (12.7mm) of hot mix followed by an asphalt-rubber SAM, and an open graded surface course. Total thickness of the system is 1 1/2" to 2" (38-51mm). The cost effectiveness of this system has been questioned by at least one author.[10]

There have been two major projects that utilized the three layer system. The first major project so constructed was on I-40 near Flagstaff, Arizona. The Flagstaff area is at 7,000 ft. (2,134 m) elevation and experiences temperatures as low as -30°F (-34°C). The section of I-40 involved was constructed in 1969, and by 1972, extensive problems had developed because of frost heave in the base and sub-base courses. The extent of distress was such that every panel in the outer truck lanes for four miles exhibited at least one crack. Obviously reconstruction and correction of the frost heave problem was the engineering answer. This answer, however, was totally unacceptable from a political standpoint. You simply don't rebuild 4 miles of interstate highway after only 3 years of service. Numerous possible rehabilitation treatments were considered but were rejected for various reasons. The solution that was chosen was to place a thin open-graded leveling course, an asphalt-rubber SAMI, and an open graded surface course. This concept was based upon preventing surface moisture from infiltrating the sub-base material, thus removing one of the necessary ingredients for frost heave to occur. This 3 layer system was placed in 1975, and provided low maintenance service until 1987, when delamination within the concrete itself required reconstruction.[16]

The second 3 layer system was placed on the Maricopa Freeway (I-10) in Phoenix in 1979. This PCCP pavement was constructed in the mid 1950's, and was a plain, undoweled pavement with joint spacing of 15'-17' (4.6m-5.2m). The joints in the pavement were not sealed and intrusion of incompressible materials had destroyed aggregate interlock with joint openings as wide as 1" (25mm) prevalent. Faulting of up to 3/8" (9.5mm) inch had occurred and some slab cracking existed. In addition, skid numbers had deteriorated to the point that the friction characteristics were dangerously low. Overall the service level of this pavement had deteriorated to the point where improvement in rideability and skid resistance was imperative.

Standard techniques for providing this improvement were: to grind and groove the pavement; construct a thick asphalt concrete overlay; or to reconstruct. Of these treatments, grind and groove would be the most economical. The aggregate used in the concrete is a hard, fine grained, quartzite and the cost of grinding was estimated at $8.00/sq. yd. ($9.57/m^2). In addition, this process would have required routing and sealing of all joints at a cost of approximately $2.00/ sq. yd. ($2.39/m^2). An experimental section employing the 3 layer system was placed in 1979, and subsequently in 1984, a four mile section of the freeway was rehabilitated at a cost less than $5.00/sq. yd. ($5.98/m^2). This section is in excellent condition to date. The only maintenance required has been minor crack sealing over those joints that were greater than 1/2" (12.7mm) in width. It should be noted that cost analysis at the time of construction indicated that this

system would be cost effective if it provided slightly over 3 years of satisfactory performance.[17]

One other application of SAMI that has proven very cost effective is to provide a water proof membrane over expansive clay sub-grades. Brakey showed that the placement of a membrane directly over expansive clay sub-grades was very effective at reducing excessive volume change. This provided a design method for new construction, or complete reconstruction, but did not address the problem of existing highways constructed over highly expansive clays. The use of a SAMI, in conjunction with an overlay, provided a solution to the problem in existing highways. Again, the only alternate solution was total reconstruction.[18]

HOT-MIXES

To this point we have discussed only the spray applied asphalt-rubber systems. What about hot mixes? Are they also cost effective?

There are three types of hot mixes that are presently being employed - typical dense graded mixture, open-graded mixtures, and a relative new comer, the gap-graded or stone mastic mix. The first hot mix placed using an asphalt-rubber binder was a 3/4" (19.0mm) thick open-graded mix placed in April 1975, on St. Rt. 87 about 20 (32 km) miles north of Phoenix. The binder content was 10 1/2% by weight of the total mix. This section served maintenance free until 1991, when the 1 mile (1.6 km) section was included as part of a larger overlay project.

Since this first project in 1975, dozens of open-graded hot mixes with asphalt-rubber binder have been constructed and are performing extremely well. One of the most noteworthy projects is on I-19 south of Tucson where a 1" (12.5mm) overlay was constructed over plain, jointed PCCP in August 1988. To date this 1-inch (12.5mm) overlay has experienced zero reflective cracking and no rutting. Of particular interest is that noise measurements conducted by an independent laboratory showed average noise level reductions of 6.7 decibels, equivalent to a noise reduction of 78%.[19]

Again one must ask what alternate solutions were available to restore rideability and skid resistance to this portland cement concrete pavement at a cost of less than $3.00/sq. yd. ($3.59/m^2). The answer of course is none.

In 1983, Caltrans constructed an experimental project on Route 495 between Susanville and Ravensdale. This project included various asphalt-rubber mixtures, SAMs, SAMI, and control sections of various thickness. The performance of this project and several others have lead Caltrans to implement a policy that essentially decreases the thickness of an asphalt-rubber overlay to 1/2 that of conventional material.[20] Since asphalt-rubber hot mix is presently almost twice the cost of conventional hot mixtures the material cost of the structure is essentially equivalent. However, when you

consider reduced aggregate quantities, construction time, traffic control and potential need to raise guardrails, signs, etc., because of overlay thickness, the asphalt-rubber will be lower in first cost. If you consider life cycle cost asphalt-rubber will virtually always be cost effective.

Another case history is the City of Phoenix where rehabilitation of the arterial streets consisted of fabric and 1 1/2 to 2" (38mm-51mm) of overlay. In 1989 the City bid as an alternate a one-inch (25mm) thick asphalt-rubber hot mix. This special mix was gap graded with 8% binder content by weight of total mix. These mixes have proved to be not only less in first cost, but have also outperformed the alternate system. The gap-graded mix developed by the City of Phoenix is the pavement for which Caltrans has determined that, from both structural and reflective cracking standpoint, overlay thicknesses can be reduced approximately 50%.[21] The economics of this asphalt-rubber hot mix were clearly demonstrated in a project near Kansas City, MO. Jackson County was responsible for maintenance and rehabilitation of the residential streets in the Salem East subdivision. The streets in 1989 were in a severely cracked condition and a project was scheduled to mill out 2" of the pavement and replace this with a 3" (51mm-76mm) overlay. The cost of this proposed design was estimated at $360,000 with a 60 day construction time. In lieu of this design, the streets were overlayed with a 1" (25mm) gap-graded asphalt-rubber hot mix with 9.5% binder. The total cost of the project was $170,000 and construction time consisted of 2 days - not 2 months. To provide the County assurance of performance, a 3 year bonded guarantee was required in addition to the normal 1 year construction bond. To date, these streets have required zero maintenance.

In summary, pavements are rehabilitated because of some specific problem. If pavement rehabilitation techniques are considered that truly provide a solution to the problem, then the use of asphalt-rubber systems can provide initial cost savings.

Those authors who are looking only at material cost comparisons should begin looking at the comparable cost of alternate pavement rehabilitation strategies. If systems are compared that truly provide solutions to the problems, then the use of asphalt-rubber can provide a first cost effectiveness in a majority of the cases. Asphalt-rubber will provide life cycle cost effectiveness virtually 100 percent of the time.

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Draft

Energy Conservation and Global Warming Gas Reduction from the Use of Recycled Tires in Rubberized Asphalt Paving

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Summary

The use of rubberized pavement appears to offers a unique opportunity to take a major waste problem generated by the transportation sector and use it to reduce the consumption of resources (including materials and energy) by the same sector, while achieving significant performance benefits. Inclusion of rubber in the asphalt binder of concretes can enhance the performance characteristics of highway paving for some applications. From the resource utilization perspective these enhancements have two direct impacts 1) rubberized asphalt paving requires less thickness for a comparable performance to conventional paving thus reducing the consumption asphalt and aggregate; and 2) rubberized asphalt paving has been shown to last longer than conventional paving further reducing materials requirements.

Based on a range of appropriate applications and paving designs, ACEEE estimates that materials consumption can be reduced 3-7 million tons for asphalt and 40-90 million tons for aggregate. The production of both these materials is energy intensive requiring about 100,000 Btu to manufacture a barrel of asphalt and 56,000 Btu to manufacture a ton of aggregate. These energy savings are offset somewhat by the 1.9 million Btu required to produce a ton of the crumb rubber from scrap tires, but net annual energy savings of 4.6-9.8 trillion Btu are possible.

These manufacturing energy savings also translate into reductions in the emissions of greenhouse gases that are targeted for reduction by President Clinton's *Climate Change Action Plan* (1993). Based on the fuel mix required to manufacture these materials, a net potential reduction of 0.1-0.3 million metric tons of carbon equivalent (MMT) emissions can be avoided, which could contribute to the *Climate Change Action Plan* target of 108 MMT of reductions by 2000.

In addition to these manufacturing energy savings, other savings could be anticipated from: 1) reduced repaving due to the rehabilitation of worn pavement, 2) reduced production of raw materials, 3) reduced transportation and direct energy expenditures associated with paving operation, and 4) improved traffic flow resulting from reduced paving time and extended surface life.

Introduction

Worn out tires represent a major disposal problem for many localities. The tires cannot be placed in landfills because they will work their way to the surface breaking the cover on the landfill. Many tires never make it to landfills but are abandoned in piles breeding vectors such as mosquitoes and rodents, and posing the risk of tire-pile fires. The U.S. EPA (1991) estimates that approximately 285 million scrap tires are generated each year. Of that, 33 million tires are retreaded, another 22 million resold, and about 42 million tires have already found alternative uses. The remaining 188 million scrap tires are added to the growing problem of what to do with over two billion scrap tires.

One disposal option is to shred the tires and use them as fuel. While this does produce a product of value (energy in the form of heat, steam or electricity), it represents a low value use for a product with a significant investment in both material resources and energy.

Another option for worn tires is to produce crumb rubber and use it to produce asphalt-rubber paving concrete. Asphalt-rubber pavings were first tried in the mid-1960s, principally for use in rehabilitating deteriorated pavement. Since that time, a broad array of paving products has been developed with the knowledge of the material and application practice equivalent to standard paving procedures (Heitzman, 1992 and Morris, 1993).

Rubberized asphalt is produced by mixing 15-28 percent crumb rubber on a weight basis with petroleum asphalt (Robert & Lytton, 1987 and Heitzman, 1992). From a practical perspective the range of rubber content is 16-20 percent because greater crumb levels result in such high viscosities that it becomes difficult to work with (Stonex, 1994). The rubberized asphalt can then be spray applied or mixed with aggregate to produce a paving material that has been shown to have some beneficial properties, among them:

- ability to rehabilitate cracked pavements for which alternative techniques are not considered viable, significantly extending their life (Morris, 1993),
- the concrete has improved flexibility, adhesion and low-temperature strength characteristics that allow paving thickness to be reduced to one-half of conventional asphalt mixes in many applications. These products are applicable in both new road construction and for resurfacing (CalTrans, 1992). Preliminary tests suggest that the thickness can be reduced to as little as one-third the thickness of convention asphalt concrete (RPA, 1994),
- the concrete has superior wear and ageing characteristics allowing the pavement to last longer. Some studies report extensions of 25 percent or longer than conventional asphalt hot mix surfaces with some reporting a doubling of life (Heerkens and Jonker, 1993, and Heitzman, 1992).
- can be used to produce low noise, open graded pavements (Heerkens and Jonker, 1993), and
- superior traction characteristics (Heerkens and Jonker, 1993).

The addition crumb rubber to asphalt does not affect the recyclability of the pavement, nor does recycling appear to affect the beneficial characteristics of the rubberized asphalt (Heerkens and Jonker, 1993). Federal Highway Administration projects that the cost of asphalt-rubber concrete to 20 to 30 percent more than conventional asphalt concrete when it is routinely used in paving applications. Previous high-cost figures have been associated with small scale, experimental applications (Heitzman, 1993).

Several applications of rubberized asphalt have shown significant benefits:

- use as a friction top coat;
- use in the application of a stress absorbing membrane;
- use in the rehabilitation of degraded pavements; and
- use as a chip seal over existing pavement.

There are other asphalt paving applications, such as base coats for which the addition of crumb rubber does not appear to offer performance benefits (Heitzman, 1992, Morris, 1993 and Stonex, 1994). The author has been unable to obtain an estimate accurate of what fraction of the asphalt used for pavings goes to these four applications, some experts feel that it may be in the 20-40 percent range (RPA, 1994).

Analysis

Estimating the potential applications of rubberized asphalt paving is a difficult proposition. A large number of variables determine how an asphalt concrete is formulated including:

- specific use and weather condition that the pavement will encounter,
- physical characteristics of the binder and aggregate,
- site considerations such as soil conditions and base design, and
- desired performance characteristic of the pavement (e.g., noise, traction) (Heitzman, 1992 and Stonex, 1994).

In addition, the formulation of the paving materials will be different for new construction, repaving and surface rehabilitation applications

In 1992, 153 billion barrels of asphalt were produced for road paving applications (EIA, 1993). Based on the appropriate applications, range of reduced paving thicknesses, range of crumb rubber content, and extended pavement life, the annual consumption of paving asphalt could be reduced 12-27 percent (see **Table I**) if the same number of miles of highway were surfaced. This translates into a reduction in asphalt consumption of 3-7 million tons. The Asphalt Institute (1979) estimates that each barrel of asphalt requires 105 thousand Btu of energy to produce,[1] so an energy savings of 2-4 trillion Btu could be achieved.

Since the volume of asphalt concrete would be reduced, a corresponding reduction in aggregate would also be achieved. The asphalt content of a concrete is determined by several factors including asphalt and aggregate characteristics, and pavement application. In general rubberized pavements require slightly higher asphalt content. An average binder content for all asphalt pavements content is about 7.5 percent (Stonex, 1994). The resulting

[1] This represents the energy consumed in production during the refining process and does not include the chemical potential energy inherent in the product itself.

Table I
Energy and Carbon Savings from Use of Rubberized Asphalt Paving

Aphalt Production		
Embedded production energy (a)	105,000	Btu/bbl
'92 Annual Production (b)	153	million bbl
	27.34	Million Tons (f)
est. '92 Energy Consumption in	16	TBtu

Aggregate Production		
Embedded production energy (a)	56,000	Btu/ton

Crumb Rubber Production		
Embedded production energy (j)	1.91	MBtu/ton
Tires Available annually (g)	188	million
Tons available annually @ 10 lb/tire	0.94	Million Tons

Notes:
(a) The Asphalt Institute, 1979
(b) EIA, 1993b
(c) see Table III: assumes petro. fuel mix for asphalt, elec. for other
(d) Heerken and Jonker, 1993, and Heitzman, 1992
(e) Roberts & Lytton, 1987, Heitzman, 1992 and Stonex, 1994
(f) 5.595 bbl asphalt = 1 ton (a)
(g) EPA, 1991
(h) Stonex, 1994
(i) CalTrans, 1992
(j) see Table II
(k) Clinton and Gore, 1993
(l) assumes average binder content of 7.5% for all pavements (h)

Rubberized Asphalt Paving			
Assumptions	Low	High	
Appropriate applications (h)	20%	40%	of asphalt consumption
Recycled tire content (e)	20%	16%	on total weight basis
Pavement lift thickness (i)	50%	33%	relative to
Extended road life (d)	25%	100%	conventional paving

Impacts			
Reduced Asphalt Consumption	12.0%	26.7%	
	3.3	7.3	Million Tons
Energy Savings	1.9	4.3	TBtus
Weighted Carbon Coeff. (c)	17.31		MMT/Quad
Carbon Emissions Reduction	0.033	0.074	MMT
Reduced aggregate consumption (l)	12%	27%	
	40.5	89.9	Million Tons
Energy Savings	2.3	5.0	TBtus
Weighted Carbon Coeff. (c)	51.12		MMT/Quad
Carbon Emissions Reduction	0.116	0.257	MMT
Increased crumb rubber consumptio	0.14	0.25	Million Tons
	28.2	49.3	Millions Tires
Increased Energy	0.3	0.5	TBtus
Weighted Carbon Coeff. (c)	51.12		MMT/Quad
Carbon Emissions Increase	0.014	0.024	MMT
Net Energy Savings	4.46	9.79	TBtus
Net Greenhouse Gas Reductions	0.135	0.308	MMT
Percent CCAP Target	0.13%	0.28%	
CCAP Taget (k)	108		MMT

reduction in aggregate consumption is 40-90 million tons. The Asphalt Institute (1979) estimates that aggregate production requires 56,000 Btu per ton, so energy consumption could be reduced 2-5 trillion Btu.

Table II

Energy Required to Produce Crumb Rubber

Crumbing of rubber (producing 10-20 mesh)

Production rate	4000	lb/hr
Motor capacity	2000	HP
Motor capacity factor	0.75	
Crumb rubber embedded energy content	954.38	btu/lb
	1.91	MBtu/ton

Source: Rubber Pavements Association, 1994

The increased use of rubberized asphalt would consumer 0.14-0.25 million tons of crumb rubber annually. Based on an average of 10 pounds of crumb rubber per tire, the 250 million tires generated annually would produce approximately 1.25 million tons of crumb rubber. It takes about two million Btu to produce each ton of crumb rubber (Rubberized Paving Association, 1994 see **Table II**). The increased crumb production would require 0.3-0.5 trillion Btu that would off set some savings from reduced asphalt and aggregate consumption. Based on these assumptions, a net savings from reduced asphalt consumption and increased crumb rubber production would result in 4.5-9.8 trillion Btu annually (**Table I**).

The mix of energy sources consumed by the petroleum industry is used to estimate weighted carbon coefficient for asphalt production to be 17.31 million metric tons of carbon equivalent (MMT) greenhouse gases for each Quad of energy reduction (**Table III**). Both aggregate and crumb rubber is assumed to be production by electricity so the national electrical generation energy source mix is used which produces a weighted fuel mix of 51.12 MMT per Quad (EIA, 1993a and Elliott, 1994). Adding the reductions from asphalt and aggregate

Table III
Calculation of Prorated Carbon Coefficient for Asphalt Production (a)

Sector Energy Consumption Data	Fuel Mix						
	Nat. Gas	Distillate	Petrolem Residual	LPG	Coal & Coke	Other (d)	Net Electric (a Total
Sector Consumption (TBtu) (b)	1,673	12	48	4	253	646	440
Sector Consumption Fraction	54.4%	0.4%	1.6%	0.1%	8.2%	21.0%	14.3%

Weighted Carbon Coefficient for Sector 17.31 MMTCE/QBTU

Carbon Coeff. (MMTCE/QBTU)							Electricity (c) Overall
	Gas	Distillate	Petrolem Residual	LPG	Coal	Other (d)	Nat. Avg.
Fuel carbon coefficients	14.54	19.97	21.66	17.26	25.45	0.00	51.12
Elec. Generation weighting							
Fossil Only (Btu consumption)	264				111	1,549	
	13.7%	0.0%	0.0%	0.0%	5.8%	80.5%	
Overall (Btu Consumption)	264				111	1,549	897
	9.4%	0.0%	0.0%	0.0%	3.9%	54.9%	31.8%

(a) based on methodology developed in Elliott, 1994
(b) EIA, 1993a
(c) assumes system eff. to be 31.6%
(d) other non-fossil fuel source (assumes net zero carbon emissions)

production savings and subtracting the increase emissions from crumb rubber production, a net reduction in carbon emissions of 0.135-0.308 MMT is possible (**Table I**). President Clinton's *Climate Change Action Plan* calls for a reduction in annual emissions of 108 MMT by the year 2000 (Clinton and Gore, 1993).

Conclusions

The addition of crumb rubber to asphalt binders for paving applications appear to offer the potential for significant performance enhancement in some paving applications. This presents a unique opportunity for using a waste product from the transportation sector to benefit the same sector by producing better roads. In addition, rubberized asphalt represents an excellent opportunity to recapture the energy we invest in the production of the tires to reduce consumption of energy intensive new materials by extending the life of existing roads and reducing the amount of materials required to construct new road surfaces. The reduced net-energy required for paving materials production also results in a corresponding net-reduction in the emissions of carbon dioxide helping to meet our goals of national carbon reduction.

Further Work

This analysis understates the potential energy and carbon reduction from the use of rubberized asphalt because it considers only the production of paving materials. A more thorough modeling of paving activities and the associated energy costs associated with these activities is required.

One important application of rubberized asphalt is rehabilitation of deteriorated pavements. The experience in Arizona demonstrates that rubberized asphalt materials can be used to rehabilitate pavement that would otherwise require repaving. Repaving is costly, time consuming, and requires significant amounts of materials and energy (Morris, 1993). If the life of a pavement can be extended for several years as the Arizona experience indicates, repaving can be deferred with significant accompanying savings in cost, energy and materials.

In addition to the emissions reductions from reduced materials production, there would also be a reduction in direct energy consumption and emissions from the paving operations. Further emissions reduction (as well as energy and time savings) would also result from reduced traffic disruptions due to more rapid and infrequent paving resulting from the reduced thickness and longer pavement life associated with rubberized asphalt.

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TESTIMONY OF

NANCY KESSEL
MEMBER, WEST VIRGINIA HOUSE OF DELEGATES

before
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON PUBLIC WORKS & TRANSPORTATION
SUBCOMMITTEE ON SURFACE TRANSPORTATION

MARCH 3, 1994

Thank you, Chairman Rahall. I am honored to be here to talk about a unique federal program that works and is sensitive to state concerns -- Section 153 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).

I am currently serving my second term in the West Virginia House of Delegates. We have been through a long struggle in enacting a safety belt use law in my state, but last year following the enactment of ISTEA we finally succeeded and West Virginia's law became effective Sept. 1, 1993.

My personal involvement with this issue began several years prior to my election in 1990. I am a registered nurse with experience in both critical care and emergency room nursing. My strong conviction that government should play a role in encouraging the public to use safety belts in order to reduce injury and death from motor vehicle accidents led me to become active as a citizen lobbyist. During these frustrating years, I was involved in a terrible accident in which the car I was driving was forced off a rain slick highway, crashed into trees, and fell over a 70 foot embankment into a rain swollen river. The car was submerged, but the safety belt saved me from serious injury and allowed me to be oriented enough to unbuckle and locate a window through which I escaped. And so, I am before you today perhaps most importantly as one of a growing number of Americans who owe their lives to the use of safety belts.

In spite of my professional background in health care, and personal experiences and knowledge that such a law would save lives and prevent injuries and save taxpayer dollars, my efforts and those of many others were not successful for many years in convincing state officials to move forward.

But, finally, today West Virginia has a safety belt use law. Would we have acted without Section 153? I believe that Section 153 made the difference in finally making it happen.

Why is Section 153 so effective? One problem we faced was a political one. There was a group of officeholders who had once opposed a safety belt law. As time passed, they privately confided that they saw the merits of the law, but had a hard time publicly announcing their change of position.

Section 153 gave them political cover to be able to vote for the safety belt law. They grumbled a bit publicly about federal pressure. But privately they were relieved that Section 153 allowed them to do what they knew was right.

Section 153 did this without the federal mandates and sanctions that we at the state level find so frustratingly common. As a state official, I can proudly say this is a federal approach that states can work with to achieve the national goal of adopting safety belt and all-rider motorcycle helmet use laws in all 50 states. I applaud the skill with which Section 153 was drafted.

States which may choose not to enact either safety belt or helmet laws should be required at a minimum to provide public education to encourage their use. While most states have already found that education alone does not adequately increase belt and helmet use, it is most important that the redirection provisions of Section 153 and the education requirement be left in place.

Mr. Chairman and members of the Committee, don't stop a federal program that is working and that the states can accept. In a time when health care reform is at the top of the agenda, please don't change a program that saves lives and tax dollars. That would be a travesty.

Thank you.

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TESTIMONY OF H. THOMAS KORNEGAY
EXECUTIVE DIRECTOR
PORT OF HOUSTON AUTHORITY

FOR THE
AMERICAN ASSOCIATION OF PORT AUTHORITIES

BEFORE THE HOUSE PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE ON SURFACE TRANSPORTATION

MARCH 3, 1994

Good afternoon. My name is Tom Kornegay. I am the Executive Director of the Port of Houston Authority and am speaking here today on behalf of the American Association of Port Authorities (AAPA). Founded in 1912, AAPA represents virtually every major U.S. public port agency, as well as the major port agencies in Canada, Central and South America and the Caribbean. My testimony today reflects only the views of the United States delegation of AAPA.

The U.S. public port community strongly supports the creation and designation of a National Highway System (NHS) and the concept of expanding it to a National Transportation System. U.S. public ports also strongly support the provisions of ISTEA that recognize the need to expand the scope of U.S. transportation planning and funding to include the needs of intermodal freight transportation as incorporated in the goals and provisions of ISTEA.

Ports are truly intermodal and were encouraged that provisions of ISTEA promised to meet critical intermodal needs. After two years, we are less encouraged. Freight projects meeting national transportation needs still are not competing well for a fair allocation of funding with local decision-making. The need to increase the focus on freight and afford it the priority it deserves was clearly voiced in the outreach meetings that the Department of Transportation held on ISTEA last year.

We believe that freight projects meeting national needs will not receive their fair share of federal aid unless and until the federal government directs state and local governments to do so. The expression "Freight Doesn't Vote" sums up the political reality at the local level--the needs of passenger traffic are considered first, and there is little or no thought to providing access to intermodal facilities handing freight.

Given the size of the NHS itself and the flexibility to transfer NHS funds to other program categories, the inclusion of a project that would benefit freight movements on the National Highway System does not alone mean those projects will ever see any funding. The expansion of the NHS into a National Transportation System is an important next step. However, we should not stop there either.

AAPA respectfully offers the following suggestions:

(1) ISTEA should be made truly intermodal by allowing the use of all program funds for rail freight projects (currently, only Congestion Mitigation and Air Quality funds, which are limited, can be used for rail freight). Many worthwhile port rail freight access projects, for both rail bridges and double stack train access, have been rejected for funding for this reason.

(2) ISTEA should create a financial incentive to fund national need projects (particularly access to intermodal facilities) either through a separate funding source or a higher federal cost share for projects meeting certain criteria.

(3) The Administration should develop and support innovative financing ideas for transportation infrastructure projects. For example, we would urge Congress to enact H.R. 3231 (Tucker, D-CA), a bill that would allow the use of tax exempt bonds to finance transportation facilities beyond the dock, including trackage or rail facilities.

ISTEA not only completely revamps our federal aid highway program, placing a new emphasis on intermodalism, but specifically recognizes the importance of access to seaports[1]. The Act provides more authority for decision-making at the local level and

1 ISTEA includes specific language on the importance of seaport access in several provisions, including a declaration of policy that the "National Intermodal Transportation System shall provide improved access to ports and airports, the Nation's link to world commerce" (section 2); a definition of the National Highway system to include "principal arterials and highways...which provide motor vehicle access between such an arterial and a major port..." (section 1006) and provisions requiring the consideration of "access to ports" in metropolitan planning (section 1024) and statewide planning (section 1025).

added flexibility in transferring funds between programs. Moreover, the language in ISTEA clearly recognized the national interest in an efficient freight transportation system as a critical factor in our country's ability to compete in the international marketplace, and assure competitive prices for U.S. consumers.

Seaports are a critical link in the intermodal transportation chain. In addition to the direct value of trade, port activities create direct and indirect economic benefits for the Nation, as well as the local port community. According to recent figures from the Maritime Administration, in 1991, cargo activities at U.S. ports created 1.5 million jobs, contributed $70 billion to the gross national product, provided personal income of $52 billion, and generated federal taxes of $14 billion, state and local taxes of $5.3 billion. The deep draft commercial ports of our country handle over 95 percent of the Nation's international trade -- nearly one billion tons of cargo a year worth almost 500 billion dollars. The importance of ports to local, state and regional economies cannot be overstated.

These benefits have been made possible by the substantial amounts of public nonfederal funds that have been invested in improving port shoreside facilities. According to the U.S. Department of Transportation, U.S. ports invested more than $12.5 billion from 1946-1992 on port and related shoreside transportation infrastructure and are expected to invest more than $5.5 billion more over the next five years. On the water side, public ports and the federal government have invested nearly $4 billion to improve and develop navigation channels--our water highways to the world.

No matter how productive those marine terminal facilities are, or how accessible the port is by ship, our port system cannot operate to maximum efficiency if the port is not readily accessible from the landside. The intermodal transportation system can be compared to a pipeline with its overall efficiency determined by the pipeline's most narrow section. With the serious shortfalls in public budgets, public investments must be directed where they're needed most, that is, directed at those narrowest sections which are increasingly the connections to the port and the interstate highway system or rail. Since the amount of international cargo moving through U.S. ports have been projected to triple by the year 2020, the need for efficient landside access can only increase and must be planned for today.

I would like to give you a few examples of the frustrations faced by ports in getting funding for freight projects.

In southern California, an application for $500,000 in ISTEA funding for the Alameda Corridor project in the Los Angeles/Long Beach area was denied despite the national significance of the project and in spite of the recent public support expressed by the California Transportation Commission. The Alameda Corridor received a total of 70 points out of a possible 80, yet it did not make the short list while projects with scores as low as 55 did make the list. Because the Alameda Corridor is neither a freeway, commuter rail, or bikeway project, it did not fall into any of the "fundable" categories. This is clearly inconsistent with the mandate of ISTEA to consider access to ports. If a project like the Alameda Corridor doesn't fit into any of the funding categories, then there seems to be a problem with the way that the categories are defined.

Ports in Florida have had to seek intervention from the Governor's office in order to become members of their metropolitan planning organizations. Ports in other parts of the country have simply been rebuffed and ignored by their local metropolitan planning organizations as well as state Departments of Transportation. In spite of specific direction to include port access on the National Highway System routes, ports in many areas of the country were not consulted or included on the state NHS maps (many were later added by the U.S. Department of Transportation).

Even though ISTEA favors decision-making at the local level, further program guidance at the national level in the area of freight movement is appropriate because it reinforces the country's fundamental dependence on international trade and commerce. The expenditure of federal funds on projects that promote our Nation's ability to handle the export and import goods being traded in international markets is an investment worthy of federal monies. If changes are not made, we are concerned that other freight projects will have to continue competing for transportation funds under a process that inherently favors traditional and more popular transit and highway projects.

In our increasingly global economy, where U.S. manufactured goods may be sourced in whole or in part from many countries, an efficient U.S. transportation and port system is essential. Our Nation should continue to encourage investment in transportation infrastructure with a focus on improving the efficiency of freight transportation movements if U.S. companies are to compete in the international marketplace.

But, while international commerce may involve a movement of goods from, for example, St. Louis to Hong Kong, the infrastructure development decisions that are necessary to ensure efficient transportation are made at the local government level. Here, unfortunately, decision-makers may be fully aware of, and responsive to, commuters but are unaware of, and unaccustomed to considering, freight needs. ISTEA attempts to guide decision-makers in meeting these needs. However, it appears that the new ISTEA priorities are in danger of being lost in the current decision-making framework at the MPO level. We recognized this danger prior to ISTEA and sought (unsuccessfully) dedicated funding for these projects or at least sufficient incentives for their funding (through, for example, dedicated funding or a higher federal match ratio). What seems clear now is that we need a renewed effort with strong federal leadership to convince local and state government officials of the importance of these projects.

AAPA pledges to work with the Subcommittee and the U.S. Department of Transportation to improve and refine ISTEA in order to ensure the accomplishment of the law's intended goals.

Thank you and I would be happy to answer any questions.

TESTIMONY

before the
Subcommittee on Surface Transportation
Committee on Public Works and Transportation
U.S. House of Representatives

by
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March 3, 1994

INTRODUCTION

The International Taxicab and Livery Association (ITLA) is one of America's oldest national, non-profit trade associations, having been organized in 1917. The ITLA is composed of small enterprises engaged in the motor vehicle for hire business operating taxicabs, liveries, vans, and minibuses. Our industry operates 205,000 vehicles, provides livelihoods for over 355,000 men and women, and transports 2 billion passengers per year. Twenty percent (one out of five) of all public passenger transportation trips are provided by the private sector. ITLA members are actively engaged in local transportation of all types, and have historically been the primary providers of specialized transportation for the disability community and the elderly.

The ITLA is pleased to submit this statement to the record of this hearing. Your willingness to allow us to appear before you today to discuss the Private Enterprise Participation requirements of the Federal Transit Administration (FTA) is greatly appreciated. We are here to express our alarm and dismay that in the Federal Register of November 26, 1993, the FTA published a Notice of Proposed Recision of Private Enterprise Participation Guidance. This Notice announced the intention of the FTA to abolish the underlying administrative procedures by which the private enterprise participation requirements of the Federal Transit Act are enforced.

BACKGROUND

For the past 30 years, the Federal Transit Act has specified certain protections and activities for private transportation companies, both in the planning and the operational activities of the Act. The statutory requirement is that public entities seeking federal transit assistance must utilize the private sector "to the maximum extent feasible." The FTA's proposal to entirely rescind the private enterprise participation requirements is at odds with the empirical results of the program and with the Clinton administration's objectives regarding the efficiency and responsiveness of government. With the growing importance of transit services in urban areas, as emphasized by the Clean Air Act Amendments of 1990 and the Americans with Disabilities Act of 1991 (ADA), it is imperative that greater efficiency be achieved in transit service delivery. However, in the absence of the Private Enterprise Participation Program, private transportation providers will be very much at a disadvantage in competing for new transit services, such as those required by ADA. In the following sections, ITLA will demonstrate that neither the facts, nor the law, support the proposed action by FTA.

THE STATUTORY FRAMEWORK

Since its inception some 30 years ago, FTA has been under affirmative statutory mandate to promote the participation of private transit operators in programs assisted by federal transit grants. Although certain protections and activities are explicitly and implicitly contained in the Federal Transit Act, no process or procedure is prescribed in the statute for the enforcement of these requirements. Enforcement of these provisions is therefore left to the rulemaking process. The Act explicitly requires that the services of private transit providers are to be utilized "to the maximum extent feasible" as a condition of receiving federal transit assistance. It is this standard of utilizing private providers "to the maximum extent feasible" that the FTA must enforce and that led to the development of the FTA private enterprise participation requirements.

The Private Enterprise Requirements

There are at least six provisions of the Federal Transit Act relating to private enterprise participation in the federally assisted transit program. Three of these sections [3(e), 8(o), and 9(e)(1)] contain the basic mandate that FTA grantees must utilize the private sector "to the maximum extent feasible." It is the provisions of these sections that impose upon the FTA the duty to assure utilization of private transportation providers to the maximum extent feasible before awarding any particular grant. As expressly stated in section 3(e) [and incorporated by reference into the provisions of section 9(e)(1)]: "No financial assistance shall be provided...unless the Secretary finds that [the recipient program], to the maximum extent feasible, provides for the participation of private transportation companies." A specific private

enterprise participation finding is a condition of each grant, and not a function of any "periodic overview" such as is being suggested by FTA in its Recision Notice.

Three sections [8(g)(4), 8(h), and 9(f)] require the proactive involvement of the private sector in federally assisted transit planning. Section 9(f) provides, in pertinent part, that: "Each recipient [of federal transit assistance] shall...(2) develop a proposed program of projects concerning activities to be funded in consultation with interested parties, including private transportation providers; (3) publish a proposed program of projects in such a manner to afford...private transportation providers...an opportunity to examine its content and to submit comments on the proposed program of projects and on the performance of the recipient; in preparing the final program of projects to be submitted to the Secretary [of Transportation], the recipient shall consider any such comments and views, particularly those of private transportation providers, and shall, if deemed appropriate by the recipient, modify the proposed program of projects."

Section 8(i)(5) of the Act prohibits enforcement of the private enterprise requirements on a periodic review basis, thereby endorsing the long established administrative practice of applying the private enterprise requirements on a project-by-project basis. The ISTEA Conference Committee Report supports the view that the private enterprise requirements were expected to be continued. With regard to section 8(i)(5), the Conference Committee states:

> "In accordance with this provision [8(i)(5)], localities should be afforded wide flexibility in establishing criteria to be used in determining the 'feasibility' of private involvement in local programs. However, nothing in this provision shall diminish the responsibility of the Secretary to encourage grantees of federally funded projects to provide for the maximum feasible participation of private enterprise in accordance with Section 8(e)." H.R. Conf. Rert. No. 404, 102d Cong., 1st Sess. 414 (1991).

As the above passage clearly indicates, Congress intended to promote private sector participation in federally assisted transit activities, not to restrict the availability of transit funding. The scope of the mandate to utilize private transportation providers "to the maximum extent feasible" is at the core of any review of enforcement of the private sector requirements of the federal transit assistance program. It is the formulation of the utilization "to the maximum extent feasible" that requires some process for evaluation in determining what constitutes "maximum extent feasible." That is why an administrative process, the FTA Private Enterprise Participation Policy, was and is necessary to implement the congressional private enterprise mandate.

When using the phrase "to the maximum extent feasible" in other rulemakings, the FTA has set the standard that unless such a requirement is satisfied, evidence of the intent to comply is required. This phrase is used by FTA in the regulation implementing the Americans with Disabilities Act (ADA) to fulfill the mandate that paratransit plans be submitted timely. In the case of the ADA regulation, FTA used "to the maximum extent feasible" to indicate that compliance is expected, not merely encouraged. The term "to the maximum extent feasible" is used at least three times in the ADA regulation (49 C.F.R. 37.141, 37.443, and 37.75). The use of this language consistently in the mandatory provisions of the ADA rule manifests not only the intent of the FTA to require certain conduct of parties affected by the regulation, but also demonstrates the agency's comprehension of the phrase as having mandatory effect.

We urge nothing more than that the FTA give the same urgency and force to the phrase "to the maximum extent feasible" when used by the Congress that it gives to that phrase when it is used in the FTA's own regulations.

THE REGULATORY REQUIREMENTS

I should be here today explaining why and how the private enterprise participation requirements should be strengthened. Over the past 10 years, since the FTA published its Private Enterprise Participation Notice, enforcement by the FTA and compliance by the planning and transit agencies has been inconsistent, at best. In fact, it has been acknowledged many times that the private enterprise participation requirements are widely misunderstood. And, it is unfortunate that the FTA Recision Notice itself repeats many of the most common myths and errors about what the policy is and how it works. This section sets out the actual requirements of the policy.

The Private Enterprise Participation Provisions

The private enterprise participation requirements themselves are a remarkably simple and straightforward statement of the statutory requirements of the Federal Transit Act. The Private Enterprise Participation Policy of 1984 merely sets forth the intention to implement the statutory mandate to encourage the utilization of private enterprise in federally assisted transit programs to the maximum extent feasible. That policy specifically states that:

> "[A]s a general matter, [FTA] recognizes that local decision makers should be afforded maximum flexibility in developing plans and programs to meet local transportation service requirements. At the same time, [FTA] is obligated to ensure that local decision makers

fully and fairly consider the private sector's capacity to provide needed transportation services."

The 1984 policy statement goes on to require notification to private operators concerning proposed services and to require that private parties have an opportunity to comment upon the development of local transit plans. All of this sounds like, and is, the earliest precursor of the private sector element of the planning requirements of the ISTEA. The 1984 policy statement for the first time created a formal process for complaints from the private sector about private enterprise participation compliance by grantees. But this policy statement was also the root of the doctrine that the FTA will only hear complaints on limited procedural grounds. The grounds for appeal allowed by the 1984 policy are: (l) that the grantee has not established a private enterprise participation process; (2) that the local process has not been followed; and (3) that the local process does not provide for the fair review of disputes. These are the same criteria for private sector appeals that are applied at the present time. No appeal ever heard by the FTA has resulted in the determination that a private provider must be utilized or has substituted the judgment of the FTA for that of a grantee on the merits of a public/private service decision.

The legislative reaction to the 1984 private enterprise participation policy statement came in section 327 of the Department of Transportation and Related Agencies Appropriations Bill of 1985. That measure prohibited the FTA from conditioning grants on specific levels of private sector involvement, from establishing quotas for private sector involvement in the transit program, and from mandating local decisions regarding private sector involvement. There was no such requirement in the 1984 policy statement, or in any other FTA action. Nonetheless, section 327 did not alter the private enterprise mandates of the Act, and report language specifically reiterated the continuing importance of the private enterprise mandates of the Act (see H.R. Com. Rept. 99-976).

The Private Enterprise Participation documentation Circular of 1986 (FTA Circular 7005.1) requires each grant recipient to develop its own process for the consideration of private enterprise participation. This documentation Circular requires notice to, and early consultation with, private providers on plans involving new or restructured service; periodic examination, at least every three years, of each route to determine if private service would be more efficient; a description disclosing the criteria for evaluating if new or restructured service could be provided more effectively by private operators; the use of costs as a factor in the public/private decision; and a dispute resolution process for objections to the initial decision. Further, FTA Circular 7005.1 requires metropolitan planning organizations to submit with their transit improvement plans: a description of the involvement of the private sector in the development of the projects; a

description of the proposals received from the private sector and how they were evaluated; a description of impediments to holding service out for competition and measures taken to reduce such impediments; and a description and status of private sector complaints.

Significantly, FTA Circular 7005.1 provides that "[t]he nature and length of documentation will be left to the grantee's discretion. It is [FTA's] expectation that the documentation will be kept to a minimum ..." The legislative reaction has been minimal. As noted above, the ISTEA added section 8(i)(5), which reinforces Circular 7005.1's case-by-case approach, and the basic private enterprise provisions have been renewed, unchanged.

Section 16 of the Act provides particular assistance for the transit needs of elderly persons and those with disabilities. Section 18 of the Act provides for transit assistance for rural communities. Programs under these sections are subject to the private enterprise participation requirements of the FTA under Circulars 7005.1 and 9070.1C (section 16) and 9040.1C (section 18). Section 16 of the Act provides that assistance is available only under limited circumstances specifically enumerated in section 16(b)(2) as where "services ... are unavailable, insufficient or inappropriate or to public bodies approved by the State to coordinate services for elderly persons and persons with disabilities or to public bodies which certify ... that no nonprofit corporations or associations are readily available in an area to provide the service..." Such service has historically been provided by the for-profit, private paratransit industry, which is relied upon by the community of persons with disabilities, even after the passage of the ADA. The impact of the private enterprise participation requirements on the section 18 program is highly beneficial. While the provision of transit services to these vulnerable communities is especially important, there is absolutely no reason to differentiate the economics and infrastructure considerations of these programs from any other facet of the federal transit program.

The need to provide safe, efficient, and economic service at the lowest cost to the public is paramount in all mass transit. In the case of vulnerable communities, reliability and a proven record of service are especially important, because mobility options may be particularly limited. It is for this reason that the established and historic performance of the private sector is especially useful in the section 16 and 18 programs. In fact, special programs such as those provided for in sections 16 and 18 of the Act are especially vulnerable to noncompetitive tendencies because of the traditional "social services" aspect of their activities. But, as Osborne and Gaebler point out, there is no arena of public service that is not improved by competition (see Osborne and Gaebler, *Reinventing Government*, (1992) at pages 80-84).

On November 29, 1993, our attorneys filed a Freedom of Information Act (FOIA) request to determine the types of complaints and protests that were driving FTA to rescind the private enterprise participation requirements. The absence of any record of undue burdens created by the application of the private enterprise requirements in the sections 16 and 18 programs, as established by the lack of documentation in the response to the FOIA request, demonstrates that this program is not unduly burdensome. There will always be dissenters, and no doubt there may be some critical comment of the sections 16 or 18 private sector provisions, but the fact remains that the private sector serves these programs well. If the FTA intends to remove the private enterprise participation program from its requirements, shouldn't the agency first have an objective survey of the extent of private service under these programs, and some reliable information about the quality of this private service? To the best of our knowledge, there is no such information currently available on a programwide basis. Trading anecdotes is no substitute for informed decision making.

Enforcement

There have been only 12 private enterprise complaints before the FTA according to the material produced in response to the ITLA's FOIA request . The oldest of these was decided on March 24, 1987, and the most recent on November 24, 1993. That is an annual average of slightly more than one private enterprise complaint per year. The private enterprise complaint process is certainly no burden on any FTA grantee.

Of the 12 private sector decisions rendered by the FTA, eight have been outright dismissed because there were no procedural errors and the FTA consistently has refused to disturb local public/private decisions. Two of the decisions have resulted in remands to the grantee to adopt, and follow, a local process (neither of these matters ever came back to the FTA for further review). Two matters have resulted in findings of violations of the FTA private enterprise requirements. In every case where a violation of FTA private enterprise requirements has been found, the grantee has been allowed to sustain the particular public/private decision it made (or to make its own subsequent decision based on the application of the fully allocated costs guidelines). In only one case was the grantee told that if it should elect to proceed with a public service option that, under the particular circumstances of that matter, the subject transit activity would be ineligible for federal assistance. This is not a record of heavy-handed federal interference in local decision making. Remember, the FTA makes approximately 900 grants, and encumbers nearly 4 billion dollars, per year, and there are approximately 3,500 grant recipients around the country.

ANALYSIS OF THE RECISION NOTICE

In its Recision Notice, the FTA takes the position that the administrative private enterprise participation requirements are an undue burden on public transit because: (1) a review of transit routes every three years creates an undue burden; (2) use of fully allocated costs is inappropriate and inhibits competition; (3) the requirements do not recognize local institutional barriers to private sector participation; and, (4) the appeal process interferes with the ability of local authorities to make decisions most suitable to local conditions. Each of these points is unsupported by the facts and is contrary to the guidance and implementation of the private enterprise participation requirements as actually administered by the FTA.

It should be noted that much of FTA's Notice is based on unsupported assertions of burdens, complaints, and comments without any underlying information or documentation. Specifically, the Notice contends that FTA Circulars 7005.1, 9040.1C, and 9070.1B "outline certain elements and procedures relating to private enterprise participation ..." and that "[r]ecipients have found some of these elements burdensome." (58 Federal Register 62409) In this regard, ITLA's FOIA request specifically sought "...any records, including background materials, letters, complaints or correspondence of any kind, that led to the consideration of the [Notice]..." The only document produced by the FTA that was responsive to this request was one letter, dated November 19, 1993, written in response to the FTA's then already self-started reconsideration of the private enterprise requirements. The other FOIA documents produced by FTA were devoid of any complaints for several years, and the old complaints were limited in number and dealt only with specific situations. There were no record of requests for a reconsideration of the private enterprise participation requirements. In fact, there is no other record of any kind sustaining the claim of private enterprise participation related problems in a program that annually makes over 900 grants and encumbers nearly 4 billion dollars.

The Requirement of Route Review Is Not Unduly Burdensome

Among the contradictions raised by the Recision Notice, is the assertion that review of transit routes every three years is an undue burden, while the Notice itself calls for a triennial review of private sector practices and section 8 of the Act requires federal review of the planning process of all transit activities at least every three years. These requirements are set against the annual submission of a program of projects by each grantee. It seems logical that the emphasis on planning (and hence, coordination) would require a periodic review of the efficiency of federally assisted transit activities, and only "closes the loop" in assuring that efficiency and effectiveness in the delivery of transit services are in fact not taken for granted. To measure the value of competition, periodic review of results is required.

Whatever the FTA's view on three-year reviews of private sector options for established transit routes may be, the claim that this review is "burdensome" is utterly without foundation. Not a single document, record, or other item was produced by the FTA in response to our FOIA request for "...any records, including background materials, letters, complaints or correspondence of any kind..." regarding the statement in the Notice that "based on reports received from its recipients, FTA believes that [the three-year route review] provision entails a significant administrative burden for many...." However, we believe that the absence of a record to support the Notice in this regard suggests, at best, that an objective study needs to be done to measure the effectiveness of the private enterprise requirements, and to weigh the costs and benefits of the program. At this time, the FTA appears to be proceeding on an arbitrary course with no more than an anecdotal record.

Fully Allocated Cost Analysis

FTA's concern about grantees' use of "fully allocated costs" seems misplaced in the Recision Notice. The Notice states, "The experience of many recipients, however, shows that in the context of their operations, the fully allocated cost methodology is not always an appropriate gauge of the true cost of providing a particular service..." First of all, in response to the ITLA FOIA, FTA produced no documentation whatsoever to support this statement. It is another of the inexplicable representations of the Notice. Second, FTA appears not to fully understand its own policies. The intent of fully allocated cost is to measure the true cost of a subset of transit services. The true cost can only be expressed by taking into account: (1) the direct cost of the service; and (2) the draw on the shared costs that is attributable to the service in question. To omit the attribution of shared costs is illogical and inaccurate — no subset of transit service exists in isolation from the central resources that are required to ensure the smooth and effective functioning of the system as a whole.

FTA policy does not require that the decision to contract out a service or keep the service "in house" be made on the basis of the fully allocated costs, it simply requires that full and adequate consideration be given to private operators and that the fully allocated costs of providing a particular service be noted, even if the final contracting decision be made on the basis of the agency's marginal cost of providing a particular service.

FTA claims that public operators are at an unfair and unrealistic disadvantage under the Private Enterprise Participation Policy, because of the requirement that fully allocated costs be used when competing with the private sector in response to a procurement solicited by a third party. This argument spins the entire problem incorrectly. The problem, which is resolved by the private enterprise participation requirements, is to prevent federally subsidized private

operators from unfairly competing against unsubsidized private operators for third party contracts. This is a clear statutory mandate under the provisions of sections 3(e) and 9(e)(1) of the Federal Transit Act.

It is somewhat ironic that the Clinton administration, which has been attacking Airbus Industries for using government subsidies that allow it to submit artificially low bid prices, would make such a statement.

Finally, the Notice states, "FTA's Fully Allocated Cost Analysis Guidelines are set forth in a complex and lengthy document, the application of which imposes a significant administrative burden, especially on smaller recipients that lack adequate staff resources." Even if one disregards the fact that there is no evidence of complaints of this "significant burden" in the materials we received from our FOIA filing, it is a silly statement. The practice of cost allocation is well understood by transit professionals and is widely practiced. Fully allocated cost estimates are a fundamental analytical tool used by transit systems across the country for internal performance monitoring. Virtually every transit system prepares route-level fully allocated cost estimates. It is inconceivable that the preparation of fully allocated cost estimates can be reasonably viewed as any kind of burden, significant or otherwise.

Local Institutional Barriers

Local institutional and policy constraints on private sector involvement do exist; this is not disputed. Such barriers include local mandates providing for government monopoly of mass transit services, labor agreements disallowing the use of "outside" private contractors, and other policies and practices. The Notice contends that such "institutional barriers should be recognized and be given preference over the private enterprise participation requirements of federal statute." This is one of the most peculiar aspects of the Notice.

Federal financial assistance necessarily comes with overriding federal conditions. For example, the federal cross-cutting requirements, including procurement requirements, follow the federal dollar to whichever entity enters the program (e.g., contractors to public transit agencies must comply with FTA Drug and Alcohol Testing Requirements). This is a condition of receiving a federal subsidy. On policy matters concerning local "institutional" prerogatives, many programs substitute federal conditions for local practices as part of having a uniform national program. For example, the ADA mandates very detailed requirements to assure the attainment of the national goal of integrating persons with disabilities into the economic and social mainstream. Before the ADA, much of mass transit in America was inaccessible. ADA superseded local institutional barriers to transit accessibility.

It is inconsistent for an agency that tells grant recipients that they must follow federal procurement requirements and compete the selection of legal counsel (a peculiarly local prerogative) that they are free to thwart the purposes and conditions of federal transit assistance merely by agreeing with third parties to do so.

Although the Notice argues that by not yielding to local institutional barriers the FTA denies "flexibility" to its grantees, it is rather the local barriers to competition that deny grantees the flexibility to be creative and to change fixed patterns. Breaking down institutional barriers is a necessary precondition to enabling competition to develop new and more efficient means to deliver transit services. Finally, if private transit providers are walled out by local conditions, how can the finding be made that private enterprise is being utilized to the maximum extent feasible? This so tips the balance between local prerogative and private enterprise protections as to negate the private sector requirements of the Act.

The Appeal Process Does Not Interfere With Local Decision Making

The Notice contends that local transit authorities are forced to make decisions favoring the utilization of private operators due to federal government interference under the private enterprise participation requirements. It is argued that local officials know best what transit options are suited to local conditions and should be free to choose among service options without FTA oversight.

The private enterprise participation requirements do not mandate particular local choices regarding public and private service alternatives. The requirements merely impose a disclosure of true costs, and an analysis of what can and cannot be saved, and such other service or performance characteristics as may be determined by the grantee to be significant before a grantee makes any such decision. However, when it comes to the actual decision to contract for transit service, FTA Circular 7005.1 (section 5) states clearly "price is merely a factor, not the only factor in such an analysis; each grantee is free to decide what other decision factors should be used according to local conditions and preferences." Further, there has never been a decision by the FTA making the public/private service provision selection for any grantee. Fully allocated costs must be used when a grantee bids in open market competition for third party contracts, but section 3(e) of the Act clearly prohibits federally subsidized competition with the private sector.

As noted above, local grantees have the power to make the choice between public and private service alternatives using their own discretion. What is ignored in the Notice is that the congressionally mandated condition of receiving FTA assistance is that the private sector be

utilized to the "maximum extent feasible." The private enterprise participation requirements of the FTA merely assure that grantees will consider the possibilities before deciding what will work best for them as they spend FTA grant funds. There is no other procedure by which the private sector mandates of the ISTEA are actively engaged.

Triennial reviews, coming as late as three years after the fact, provide no meaningful redress or enforcement potential. In response to our FOIA request for documentation, the FTA provided the private sector complaint decisions, which I discussed earlier. The total of 12 complaints, with eight dismissals for failure to state a cognizable claim, two remands for failure to provide a process for hearing complaints locally, and two findings of violations with no penalties imposed, illustrate the lack of burden created by the FTA appellate process. Because the private enterprise requirements force local agencies to deal directly with private sector concerns on their own, they are almost always worked out locally, as they should be. The fact is that the FTA private enterprise complaint process has always supported local control over public/private decision making.

CONCLUSION

As I have discussed, the facts and the law do not support either the issuance of the Recision Notice, or the actions proposed in the Notice.

- The list of enforcement proceedings of the FTA's private enterprise participation requirements document the lack of federal interference in local decision making.

- The FTA's record does not reflect any of the burdens alleged in the Notice, nor any benefits to be attained by revoking the private enterprise participation requirements

- Given the clear legislative mandate for private enterprise involvement in federally assisted transit programs, no objective need or reason for any change in the private enterprise participation requirements has been demonstrated.

Thank you.

Statement

of

Lester P. Lamm, President

Highway Users Federation

before

the

House Public Works and Transportation

Subcommittee on Surface Transportation

March 3, 1994

THE NATIONAL HIGHWAY SYSTEM

Lester P. Lamm, President
Highway Users Federation
March 3, 1994

Good morning, Mr. Chairman and members of the subcommittee. I am Les Lamm, president of the Highway Users Federation, the nation's most diversified private sector organization dedicated to improving the safety and efficiency of our highway transportation system.

Enactment of legislation designating the National Highway System is the Federation's top legislative priority. I congratulate you, Mr. Chairman, and your subcommittee colleagues for holding these hearings early and setting out an ambitious schedule for House action on NHS legislation. I also congratulate Secretary Peña and Administrator Slater for their timely submittal to you last December of the 159,000-mile proposed NHS.

We sincerely appreciate this opportunity to tell you why our members think your work here is so important to meeting our national goals of greater personal mobility, environmental improvement, and long-term economic health.

Travel Demand vs. Highway Investment

The Constitution's Interstate Commerce Clause assigns to the national government a responsibility to facilitate the free flow of commerce across state borders. This is the reason the Department of Transportation and its predecessors have had a role in federal assistance for highways since 1893. By focusing federal dollars on strategic investments in our most important highways and bridges, we believe the National Highway System program is the logical way for Congress to continue to fulfill that vital mandate into the next century.

And as members of this subcommittee know, strategic highway investments are essential today for one simple reason: our current federal financial resources are insufficient to meet the needs on the entire road and bridge network. Every level of government has more problems than funds today, and taxpayers are insisting on a system of priorities, a sense of strategic values, and the ability to target results.

Lester P. Lamm, President
Highway Users Federation
March 3, 1994

The Federal Highway Administration's (FHWA) 1993 report on the condition of our highways and bridges indicates we should be spending $51.6 billion annually just to maintain highways and bridges in their current condition (more than $67 billion annually if we want to improve them). Yet, in 1992, federal, state, and local governments invested just $38.7 billion in highway capital improvements. Meanwhile, pavements on 10,500 miles of Interstate highways and 54,400 miles of non-Interstate arterials (most of these would be part of the NHS) were rated in mediocre to poor condition. And nearly 187,000 bridges on Interstate and non-Interstate arterial highways were rated deficient and in need of repair or replacement.

At the same time, budget pressures have caused the federal investment in highways to fall $4.4 billion short of the mark Congress set in 1991 for the first three years of the Intermodal Surface Transportation Efficiency Act (ISTEA). While current highway user fees could support a substantially larger federal program -- and we urge Congress to provide full funding for highways in the 1995 budget -- federal resources clearly are not sufficient to provide the additional $17+ billion per year necessary just to maintain current conditions on our total road network.

And while investments are deferred or spread too thinly, demand on our highway infrastructure is on the rise. 1990 census data indicate clearly that highway travel has increased substantially over the last two decades, and more recent studies indicate that demand will continue to increase if the economy grows at even a modest pace. More and more Americans are voting with their vehicles for greater mobility and more personal freedom by opting for travel by highway.

Here are some facts about U.S. transportation:

Highways carry 82 percent of all intercity passenger miles and 94 percent of all urban commuter miles. And despite the importance of railroads, pipelines, and waterways, trucks carry 78 percent of the dollar value of all freight moved in the U.S. That's how we move people and goods in this

country. The magnitude of those numbers alone is a persuasive argument for investing in a National Highway System.

But there's more. Between 1980 and 1990, the number of passenger cars increased almost twice as fast as the population, and 22 million more commuters drove to work. Since 1970, travel by car has increased by 75 percent and travel by heavy combination trucks has more than doubled.

You will hear from my colleague on this panel, Tom Donohue, President of the American Trucking Associations, about a study commissioned by ATA showing that even a modest 2.5 percent annual economic growth rate will, by the year 2000, result in 28.5 percent more freight moved by truck, 26.5 percent more miles driven annually, and 10 percent more vehicles on the road. In other words, that's the bare minimum increased truck travel we can anticipate as our economy grows to provide more jobs and a higher standard of living for all Americans.

More jobs and a higher standard of living are goals all of us support. The question is how to accommodate the increased private and commercial travel necessary to make those goals attainable. The answer is to focus our limited resources on a system of highways and bridges where we'll get the most bang for the buck in terms of increased productivity and greater mobility. That's the NHS.

America Needs the NHS

Mr. Chairman, America needs the National Highway System. We need it to provide the convenience and freedom of mobility that Americans in increasing numbers demand and to which many have simply become accustomed.

We need it to produce jobs, reduce transportation costs, make industry more productive, improve North American trade corridors, and keep U.S. goods cost-competitive in domestic and world markets.

We need it to improve air quality by reducing urban congestion.

We need it to provide safer, easier access to our national parks, cultural and historic sites, and other travel destinations.

We need it to deploy military personnel and equipment quickly and efficiently.

We need it to reduce the carnage that still takes nearly 40,000 lives per year on our highways.

And if we want the most efficient intermodal transportation network in the world, we need the National Highway System to provide access to our ports, airports, railroad facilities, and mass transit stations.

NHS Benefits

As I've indicated, the NHS is truly an economic necessity. But it is more than just a necessity. This strategic investment program will be a boon to our standard of living -- providing more employment and housing opportunities, greater freedom, and better access to recreation destinations -- and it will mean life itself to thousands of highway travelers who will benefit from the enhanced safety of wider lanes, longer sight distances, roadway shoulders, guardrails, incident alert signals, and other improvements.

At current authorization levels ($6.5 billion per year), the NHS program will generate over 230,000 jobs annually. Most of those are good-paying jobs in project design and construction and the service and materials supply industries.

NHS improvements -- for example, lane widening, HOV construction, bridge modernization, volume-sensitive traffic signals, and other IVHS-type improvements -- will keep traffic moving more smoothly, cutting congestion.

That will reduce the estimated $40 billion per year economic loss caused by congestion in our major urban areas. It also will improve air quality and reduce commuter hassles, making our cities more livable. As urban areas begin activating their congestion management systems, it will be clear that NHS improvements will be a key element of areawide strategy in all urban regions.

By providing better access to travel destinations, the NHS will provide a better, safer vacation for U.S. citizens and the 44 million international visitors who travel here annually. Over 80 percent of those recreation travellers reach their ultimate destination by autos, vans, and buses over the U.S. road system.

Over 75 percent of the lane miles in the proposed NHS are located in rural America. This strategic highway system will help move farm products to market faster and at less cost, helping to sustain employment opportunities in our agricultural heartland.

While approximately 60 percent of U.S. households are now within five miles of an Interstate, nearly 90 percent of all households will be that close to an NHS route. Likewise, 95 percent of U.S. businesses will be within five miles of an NHS route, compared to 70 percent that are close to an Interstate today. This will bring quality highway service to approximately 72 million more Americans.

Finally, and perhaps most importantly, the NHS will save lives and reduce the number of injuries and the millions of dollars in economic losses caused annually by traffic accidents. Widening a lane by one foot on a two-lane rural road would reduce accidents by 12 percent, according to FHWA data, and increasing roadway "recovery distances" from four feet to 14 feet reduces accidents by 25 percent. Those are exactly the type of improvements to be expected on many NHS routes, and with those relatively simple but sometimes costly safety improvements, we can save hundreds of lives and thousands of injuries each year.

Lester P. Lamm, President
Highway Users Federation
March 3, 1994

NHS & ISTEA

Despite the clear need for, and benefits of, the National Highway System, this subcommittee will hear from those who argue it is an ill-conceived program that should either be substantially modified or killed by Congress' failure to act. They will argue that ISTEA's NHS provisions are inadequate in several respects and that, ultimately, the NHS program is inconsistent with ISTEA's new paradigm for assessing transportation needs and performance. I will address several of these points briefly, and we will be happy to discuss them further with subcommittee members and staff at any time.

I will state the Federation's position as succinctly as possible.

In ISTEA, Congress established an effective balance between strategic (or national) transportation priorities on one hand and local priorities on the other. Counting Interstate maintenance, NHS, and assuming strategic value in half of the bridge funds, in 1996 and 1997 you will provide about $9 billion for strategic highway and bridge investments. The remaining $11 billion highway program dollars and all of the $5-7 billion transit funds are aimed at, or readily available for use on, purely state and local transportation priorities. There will be no federal priority setting, little federal oversight, maximum flexibility -- and by definition, little or no concern for long-distance transportation needs -- on projects financed with non-strategic federal funds.

Some, including the Highway Users Federation, would have preferred that the federal-aid highway program be more heavily weighted toward strategic highway improvements. Others have urged you to put even more resources into local priorities. But the bottom line is: ISTEA established a balance, which can only be preserved by the strategic focus of the NHS program.

There are three components of the NHS that are crucial to its ability to perform as you designed it:

- NHS routes must serve strategic transportation needs, providing service across national, state, and local borders.

- In order to continue appropriate improvements on NHS routes, dedicated funding must be set at a minimum of $6.5 billion per year -- the current level.

- The NHS must allow added highway capacity improvements where appropriate, in order to accommodate increased traffic as specific areas experience economic growth.

An NHS program with those characteristics will provide the nation with a border-to-border, coast-to-coast network of strategic highways that connect other transportation facilities and truly serve as the backbone of our national transportation system. A program without those characteristics will not. It is that simple.

Therefore, the Federation strongly opposes modifications to the NHS program that would: 1) permit state or local officials to delete NHS routes and substitute non-highway facilities; 2) require states to suballocate NHS funds to metropolitan areas; 3) prohibit the use of NHS funds for new construction, including lane additions, and other capacity-expansion projects; or 4) in general, modify the sound NHS provisions Congress enacted less than 27 months ago in ISTEA.

ISTEA placed considerable new emphasis on funding flexibility and more state and local control in establishing transportation plans and priorities. We believe the enacted concept of the NHS is one of the most effective elements of ISTEA, and it already provides sufficient opportunity for local participation and independent oversight.

FHWA has already reported to the subcommittee that NHS routes were designated through the state and metropolitan planning processes and that metropolitan planning organizations signed off on routes designated in their

jurisdiction. Moreover, any NHS project undertaken in the future in metropolitan areas must be consistent with the required state and metropolitan transportation planning process.

In addition, NHS funds are already extremely flexible. Up to 50 percent of the funds can be transferred to other categories at the state's discretion, and the remaining 50 percent can be transferred with the approval of the U.S. Secretary of Transportation. Frankly, these provisions concerned us when they were enacted, lest strategic long-term system needs be subverted to other local priorities. Nevertheless, we have been willing to accept the Congress' intended balanced approach with ISTEA, and we are not proposing that these provisions be modified.

Also, it is clear that NHS projects, like all other federal-aid highway projects, will have to meet applicable federal and state environmental laws, including heightened standards for public participation and review. In clean air non-attainment areas, NHS projects will be subject to the same rigorous requirements to ensure compliance with the Clean Air Act as any other federal-aid highway project. Those projects that do provide additional highway capacity will be particularly closely scrutinized. Supplemental arbitrary restrictions are clearly not warranted.

Finally, as the links which provide access to ports, airports, rail terminals, and mass transit stations, NHS routes will be improved to permit the intermodal efficiencies that are the vision and promise of ISTEA. In that context, a program to focus federal funds on this critical transportation link is not only consistent with, but vital to, the new emphasis and direction of ISTEA.

We urge Congress to keep in mind the strategic interstate and inter-regional travel purposes of the NHS program and its relation to the STP and other programs designed to maximize flexibility and local influence on funding decisions. In order to retain ISTEA's original balance, we hope that any

proposed changes to the administrative structure established in ISTEA will be rejected. (I would note, though, that the Highway Users Federation does support the Department of Transportation bill's proposal to permit limited system changes, within a total limit of 165,000 miles.)

In other words, we should all remember that NHS is only part of ISTEA. Congress provided substantial funding, project selection authority, air quality compliance requirements, and administrative controls in other ISTEA categories to ensure that federal financial resources would be available to help meet local transportation needs.

Remember, too, that NHS decision-makers must be able to see interstate and regional transportation priorities and not be too narrowly focused on local transportation concerns.

Remember that current funding is too little to meet existing needs on this small but critical highway system. Those limited funds should not be further diluted by a federal requirement that they be spread out among local jurisdictions within a state.

Remember, finally, that many areas experiencing economic growth have a pressing need for added highway capacity. The NHS program is designed to help meet that need. A prohibition against new construction or other capacity enhancements would seriously denigrate the value of this program.

"Real World" Significance

Recently, the Federation surveyed some of our member companies to gain some "real world" insights about the importance of the NHS in meeting the needs of U.S. business. We found that while our member companies use every available mode of transportation, they have been relying to an ever-greater extent on top quality highway service to reduce their transportation costs and to improve productivity. And they often make big investment decisions based on the availability of such quality highway transportation.

U.S. Steel, for example, says good highway access "was a key factor in locating a 600,000-ton annual capacity galvanizing plant at Leipsic, Ohio." And that same good highway capacity is essential for the just-in-time deliveries that now account for one-quarter of all shipments to and from U.S. Steel plants (up from one-fifth of all shipments five years ago). NHS funding might help Pennsylvania officials make improvements to eliminate the extreme congestion that drives up transportation costs by delaying 200 trucks per day serving U.S. Steel's Mon Valley Works Irvin Plant in Dravosburg, Pennsylvania.

Just-in-time deliveries account for 70 percent of all shipments to and from facilities of the Cooper Tire & Rubber Company. As a result, 90 percent of the company's freight bill is carried on trucks. Cooper's traffic manager says,

> "Our customers consist of many independent tire dealers. They don't restock until their inventory is depleted -- then they want the product immediately. Therefore, a good highway system is critical to provide our customers the transit service they require."

Good north/south and east/west highway service was a key factor in locating a Cooper Tire & Rubber plant near Moraine, Ohio.

Chrysler Corporation says 65 percent of all freight shipped to and from its facilities goes by truck. That translates into 1,700 trucks carrying $85 million worth of goods for Chrysler on the average business day. And 91 percent of those shipments arrive just-in-time (up from 67 percent five years ago). That's high-volume traffic serving highly efficient production sites, and a high-quality road network is essential for it to work.

The 3M Company says over 5,000 trucks per day are employed carrying goods to and from its plants. Many of 3M's largest customers require just-

in-time deliveries as part of the service contract, and 3M says poor pavement conditions and congestion in many areas increases transportation costs for the company and its customers. Better highway access was a prime consideration when 3M relocated an international distribution center from St. Paul, Minnesota to DeKalb, Illinois.

On an average business day, the Mobil Oil Company has 745 trucks on the road carrying $23,200,000 worth of product. A Mobil official told us,

> "Our philosophy has been just-in-time for many years. We concentrate on minimizing the time between customer order and delivery, thereby reducing inventory carrying cost for the customer and for us."

Mobil finds that traffic bottlenecks and low-capacity freeways in most metropolitan areas -- particularly Los Angeles, Chicago, and the Washington, DC suburbs -- are driving up transportation costs. That's the kind of problem the NHS program is designed to solve.

General Motors Corporation has become a leader in the shift to just-in-time deliveries. Five years ago, GM relied on just-in-time for 20-25 percent of its shipments. Today, that figure has jumped to 90-95 percent. GM offers the following example to illustrate just-in-time efficiencies that translate into lower transportation costs and a boost in productivity:

> "Using specialized high-cube, drop-frame trailers, JET's company drivers and owner-operators travel 230 miles from Morain, Ohio to Pontiac, Michigan to meet a 15-minute delivery window. The contract with GM calls for JET to make 23 deliveries a day beginning in February and increase to 70 a day in April."

That's 23 trucks in the beginning, growing to 70 trucks with a few months of practice, Mr. Chairman, in a 15-minute delivery window. And the

delivery is 230 miles from the distribution site. That's the kind of efficiency that has put U.S. companies back on top in the auto industry, and it's the kind of efficiency that will be necessary for American businesses to compete in the 21st century. That kind of efficiency depends on a top-quality highway system.

I highlight these few examples, Mr. Chairman, to illustrate the important role that a good highway system plays in keeping American business in business. The decisions this subcommittee and this Congress make with respect to the structure and funding of the NHS program will have direct and long-lasting implications for businesses deciding where to locate production facilities and what markets they can afford to enter. Strategic investments in a coast-to-coast, border-to-border National Highway System will help sell our products and create jobs for future generations of Americans. That's the bottom line.

Early Action

Again, Mr. Chairman, we congratulate you and your colleagues for beginning the legislative process early this year. The Highway Users Federation is committed to working with you and your Senate colleagues to get NHS legislation enacted well before the 1995 deadline.

Congressional approval of an NHS program that will serve the purposes ascribed to it in ISTEA requires nothing more than two short paragraphs of statutory language. We understand, however, that Members have a variety of issues unrelated to the NHS and specific projects which this subcommittee will consider including in the legislation.

Understanding that many of those issues and projects have merit in their own right, we urge the subcommittee to exercise restraint in determining which of them to include in this legislation. We will be working hard to encourage action on NHS legislation in the Senate this year, and there is little doubt that prospects for Senate action will be enhanced to the extent that other

issues and projects in the House bill are held to a minimum.

We look forward to working with the subcommittee as you consider NHS legislation. It is vitally important to America's economic future, and we appreciate your commitment to getting the job done.

Thank you, Mr. Chairman, for this opportunity to outline the views of the Highway Users Federation. I will be happy to answer any questions.

TESTIMONY OF LES MacFARLANE

ON

THE NATIONAL HIGHWAY SYSTEM

PRESENTED TO

THE HOUSE SUBCOMMITTEE ON SURFACE

TRANSPORTATION

ACEC

Les MacFarlane, President-Elect
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March 3, 1994

Mr. Chairman, members of the Surface Transportation Subcommittee. My name is Les MacFarlane. I am a senior partner of VTN Nevada, a consulting engineering firm employing 120 people and located in Las Vegas, Nevada. I am also President-Elect of the American Consulting Engineers Council (ACEC), the largest national organization of consulting firms representing more than 5,000 firms with some 175,000 employees located across the country. ACEC firms annually design over $100 billion in constructed public and private works projects. Our firms range in size from a single, experienced, registered professional engineer to corporations employing thousands of professionals who represent a diverse source of national and international engineering and scientific expertise. I am supported in this testimony by ACEC's Design Professional Coalition which represents ACEC's largest and most prestigious firms. I am pleased to be here today to present the views of the ACEC membership on the National Highway System (NHS).

We commend your leadership, Mr. Chairman, along with the great vision of the full committee leader, Congressman Mineta, in placing a significant emphasis on the NHS. We are excited by the initiative taken by both Congress and the Administration in working to craft a national highway network that focuses a new effort on prudent investment of our public dollars to maintain and expand our nation's vast infrastructure network. The support for the U.S./Mexico corridors within the NHS is also extremely important as a result of the recent passage of the North American Free Trade Agreement (NAFTA). We recognize the NHS as a key first step towards a fully integrated national transportation system that Congress worked so hard to put together through the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). In

order to fully reap the benefits of such a system, it is crucial that Congress appropriate the full funding levels requested by the Administration for ACEC strongly believes that quality is an essential component of any effort to significantly improve the operating and physical condition of our transportation system while making it more responsive to our national economic, environmental and energy concerns. ACEC, in conjunction with FHWA, AASHTO, AGC and others, currently serves on the steering committee of the National Quality Initiative (NQI). This unique partnership has been formed to focus attention on continuous quality improvement within the highway industry. A national emphasis on the quality of highways is needed, in part, to provide an answer at some point in the future to the question: "Is the quality of highways improving?" In order to address this issue and to ensure that the quality of highways remains a focal point of all aspects of the highway program, a long-range plan that will provide direction, focus and continuous emphasis for the NQI must be developed and used throughout the highway community on the federal, state and local levels. In developing this plan, it will be essential for everyone to consider all facets of a highway project's life cycle, including pre-design, detail design, construction, and maintenance and operations.

The NQI places an emphasis on a key management-related process in highway design and construction -- partnering. Partnering is an approach that is based on mutual respect and shared commitment to work cooperatively to fulfill the requirements of a project, i.e. -- to deliver quality. In the past, the traditional process for public works development, the interrupted continuity between owner, designer, contractor, inspector and operator could lead to distrust and often costly litigation. The partnering process instead is designed to favor the synergy potential

in combining the skills of team members towards common objectives.

ACEC recognizes the tremendous benefits of partnering and is working diligently to establish formal agreements with other parties involved in the project process. Currently, we have written agreements with the U.S. Army Corps of Engineers and the American Public Works Association. We are also working to structure such agreements at the state and project levels. We firmly believe that this is a worthy method of helping to enhance quality in the design and construction process.

During debate on ISTEA, it was suggested that regulations be established to include warranties and guarantees in contracts for design and construction services on federal-aid highway projects as a means towards enhancing quality. We believe that the use of such measures in our current system would set a dangerous precedent that would adversely impact the design and construction of all the infrastructure throughout the United States. ISTEA included a provision requesting the U.S. General Accounting Office (GAO) to conduct a study on the use of such measures. During a meeting with the GAO on this topic, ACEC representatives presented the following problems with warranties as they relate to highway design work:

(1) Engineers and designers provide professional services rather than a product. Warranties and guarantees are typically applied to products, not professional services. Engineering (much like law and medicine) is based on professional judgement; therefore, its practitioners cannot appropriately warrant or guarantee a result. Adequate protection for facility owners already

exists and has worked satisfactorily for many years in the form of negligence laws backed up by an engineer's professional liability insurance.

(2) Professional liability insurance will not cover acts when the professional agrees to warrant or guarantee his or her work. This recognizes the fact that professional who agree to provide warranties or guarantees have put themselves in a position where they have accepted a greater degree of liability than is ordinarily found in the profession in which they practice. Furthermore, engineers have no control over the specifications dictated by the states on projects. Having engineers working on highway projects without insurance is bad public policy. Additionally, firms without insurance lack the capital or assets to cover any major failures that are uninsured.

(3) Small business would be driven out of the market. Many small businesses cannot risk the increased liability exposure, and therefore, could not propose for a contract where warranties would be required. This decreased competition could increase project costs or lead to less qualified firms performing the work, thereby posing a threat to the safety of the American public.

Design professionals are already trying diligently to develop designs and provide the quality of services that meets public needs while simultaneously stretching the buying power of limited public funds. Engineering and design services are procured on a Qualifications-Based Selection (QBS) process. QBS facilitates the selection of an engineer or designer based on qualifications

and competence in relation to the scope and needs of the particular project at a fair and reasonable cost to the client.

As an alternative to the warranty/guarantee approach, we would instead suggest quality, cost effective principles based on life-cycle costs, a higher degree of maintenance, performance goals and monitoring, and an increase in minimum federal design standards as a means towards ensuring more cost effective results.

Another method of promoting quality in the design process is through the use of value engineering. This involves an analytical process by which a team not connected with a design independently reviews that design to seek improved project quality and reductions in the total cost, considering the initial investment and present worth of the ongoing costs over the life of the project. ACEC supports this practice when an independent qualified team is chosen and compensated by the owner for the efforts. The greatest number of options and the greatest potential for improving the project design are available during the study and preliminary design stages. Consequently, value engineering can best serve the client, the public, and the design professional when applied in the early design stages.

A key element in the success of highway design and construction is the timely delivery of an end product. Presently, many states are experiencing delays in highway design (and thus construction) due to unnecessary audit delays of design firms. Furthermore, millions of dollars are being wasted on multiple audits of A/E firms by state highway agencies, because one agency

is reluctant to accept the audit results from another agency. Many of our firms work in several states and are audited several times a year for the same information. Having each state separately audit the same firm is a financial and administrative burden to both the engineering firm and the state agencies.

Instead, ACEC strongly supports a uniform auditing process requiring states and local agencies to negotiate, perform, and audit design service contracts in accordance with cost principles in the Federal Acquisition Regulations (FAR). Consistent with the FAR, contract negotiations and payments would be made on the basis of actual costs. Also, agencies would be required to accept current audits performed by other states, federal agencies or an independent certified public accountant. Such a uniform audit process was introduced in the form of a pilot program in the final version of ISTEA and has been working well on a somewhat limited basis. ACEC continues to work extensively with the states in the context of this pilot program with a good deal of success. While many states are interested in this approach as a means towards saving money and reducing project delays, there still remains a political pressure in some areas to maintain the status quo. However, the House has attempted twice to extend the program to all fifty states. We urge the House to continue in the effort. In the meantime, we are hopeful that our continued work with the states will result in a widened acceptance and implementation of a uniform audit approach.

ACEC recognizes the tremendous needs that exist in our nation's infrastructure network and continues to work on promoting improvements through our active participation as a founding

member in the Rebuild America Coalition. This group includes sixty national public and private organizations committed to reversing the decline in America's investment in infrastructure. The coalition works on a regular basis with Congress, the Administration and the general public in advocating programs designed to improve our nation's infrastructure.

There is no doubt that such a cause is needed in the country. One of our members recently attended a state Chamber of Commerce meeting where manufacturers indicated that infrastructure conditions were the number one considerations (above taxes, housing costs, etc.) determining where these major industries chose to be located. One manufacturer present told the group how he had been forced to install air bags in a hauling trailer in order to cushion the load from the devastating impact of a deteriorating infrastructure. According to the Federal Highway Administration, over 60% of our highways and over 40% of the nation's bridges are either structurally deficient or functionally obsolete. Late last year, a Dateline NBC segment was aired which graphically illustrated the problems with many of our nation's bridges. Immediately following this program, ACEC President Paul Sprehe contacted all Members of Congress offering technical assistance and expertise to help Members better understand this problem and assist in describing the causes of the epidemic to constituents back home. Many of your colleagues have asked us to help them on this matter, and we would be glad to assist anyone else interested in our help.

ACEC appreciates the work of this subcommittee in promoting a first-class national transportation system. ACEC is convinced that if America wants to remain economically strong

and competitive, Congress must enact the NHS to guide future decisions and to serve as a foundation of any viable national transportation network.

Thank you for the opportunity to appear before you today. I would be happy to answer any questions.

TESTIMONY
BEFORE THE
HOUSE SUBCOMMITTEE ON SURFACE TRANSPORTATION
FOR THE
PUBLIC WORKS AND TRANSPORTATION COMMITTEE

MARCH 3, 1994

JAMES J. MCLARY
PRESIDENT
WASHINGTON PRIVATE OPERATORS COUNCIL
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703-351-9820

MY NAME IS JAMES J. MCLARY AND I AM PRESIDENT OF AMERICAN CONTRACT MANAGEMENT, INC. A PRIVATE-FOR-PROFIT TRANSPORTATION PROVIDER. THANK YOU FOR THE OPPORTUNITY TO PRESENT MY VIEWS ON THE COMPETITIVE CONTRACTING OF TRANSIT SERVICES. I AM REPRESENTING THE WASHINGTON DC PRIVATE OPERATORS COUNCIL, MANY SMALL ENTREPRENEURS, AND MY OWN COMPANY. I REALLY HAVE TWO POINTS THAT I FEEL ARE RELEVANT TO YOUR DELIBERATIONS. ONE OF THE POINTS DEALS WITH SMALL BUSINESS DEVELOPMENT AND THE SECOND WITH MONOPOLISTIC ENTITIES.

THE FIRST POINT I WOULD LIKE TO DISCUSS CONCERNS SMALL BUSINESS DEVELOPMENT. I OWN AND MANAGE A SMALL BUSINESS THAT PROVIDES SPECIALIZED PARATRANSIT SERVICES TO TRANSIT AUTHORITIES AND CITIES AND COUNTIES. THIS BUSINESS HAS BEEN HELPED BY THE PRIVATE SECTOR INITIATIVE PURSUED BY THE URBAN MASS TRANSPORTATION ADMINISTRATION NOW CALLED THE FEDERAL TRANSIT ADMINISTRATION (FTA). MY COMPANY WAS

STARTED IN 1992 AND NOW CONTRACTS ANNUALLY FOR ALMOST $3,000,000 OF SERVICE. WE HAVE NEARLY 85 EMPLOYEES AND GENERATE OVER $750,000 IN ANNUAL PAYROLL. MY COMPANY REPRESENTS AN EXAMPLE OF MANY SMALL COMPANIES THAT HAVE BEEN CREATED, AND MANY MORE SMALL COMPANIES THAT SURVIVED BECAUSE OF THE FTA COMPETITIVE CONTRACTING POLICIES. IN ADDITION TO PROVIDING JOBS AND OPPORTUNITIES TO MANY MINORITIES, WE ALSO HAVE SAVED SERVICE THAT MIGHT HAVE BEEN ABANDONED IF LESS EXPENSIVE WAYS TO OPERATE WERE NOT FOUND. ALL TRANSIT AGENCIES ARE BEING FACED WITH SERIOUS FINANCIAL SHORTFALLS, AND COMPETITIVE CONTRACTING IS ONE MECHANISM THAT ALLOWS SERVICE TO BE RETAINED AT LOWER COSTS.

A SECOND EXAMPLE OF THE COMPETITIVE CONTRACTING ISSUE IS LOCATED RIGHT HERE IN THE WASHINGTON DC AREA. MONTGOMERY COUNTY STARTED THE USE OF ALTERNATIVE SERVICES WITH THE CREATION OF RIDE-ON IN THE 1970'S. THIS SERVICE WAS AN ALTERNATIVE TO METRO AND WAS STARTED TO SAVE MONEY. SINCE IT'S INCEPTION, RIDE-ON HAS EXPANDED, PROVIDED INNOVATIVE SMALL BUS SERVICES, NOW CONTRACTS SOME OF IT'S OWN SERVICE WITH PRIVATE COMPANIES. IN ADDITION, FAIRFAX COUNTY RECENTLY AWARDED A CONTRACT TO OPERATE THEIR MAJOR PUBLIC WORKS MAINTENANCE FUNCTION AND A SECOND CONTRACT TO OPERATE THE RESTON-HERNDON EXPRESS SERVICE. THESE ARE SOME EXAMPLES IN THIS AREA WHERE OUR LOCAL PRIVATE OPERATORS COUNCIL HAS BEEN ACTIVE. WE ARE NOW WORKING WITH THE DC GOVERNMENT TO

IDENTIFY WHERE SOME TRANSIT SERVICE MIGHT BE COMPETITIVELY PROCURED TO AVOID A $15,000,000 CUT IN METROBUS SERVICE. ALL OF THESE EXAMPLES HAVE SAVED SERVICE AT A LOWER COSTS.

MY SECOND POINT IS THAT MONOPOLIES GET FAT. THIS IS TRUE IN THE PRIVATE SECTOR AS WELL AS THE PUBLIC SECTOR. HOWEVER IN THE PRIVATE SECTOR IF ANY COMPANY IS ABLE TO DEVELOP A MONOPOLY THEN QUITE OFTEN OTHER ENTREPRENEURS START OFFERING THE SAME PRODUCT AT A LOWER COSTS. I POINT TO TWO COMPANIES IN MY INDUSTRY, MOTOROLA AND GENERAL MOTORS. BOTH OF THESE COMPANIES WERE CONSIDERED THE ONLY ACT IN TOWN. NOW THERE ARE THREE TO FOUR OTHER MAJOR TWO-WAY RADIO COMPANIES THAT TAKE THE BULK OF THE MARKET, AND GENERAL MOTORS NO LONGER BUILDS BUSES. TRANSIT AUTHORITIES HAVE NO COMPETITION UNLESS THEY ARE REQUIRED TO SEEK OTHER OPTIONS. THE FTA PRIVATE SECTOR POLICY REQUIRES THEM TO LOOK, NOT DO!!. IN MY BOOK AS A BUSINESS OWNER, I AND MY STAFF ARE ALWAYS LOOKING FOR BETTER AND MORE EFFICIENT WAYS TO DO OUR JOBS. WE HAVE THE BOTTOM LINE INCENTIVE. I BELIEVE COMPETITIVE TENSION MAKES ALL OF US WORK SMARTER.

THANK YOU AGAIN FOR THIS OPPORTUNITY AND I HOPE THAT YOU WILL CONSIDER MY TESTIMONY ON BEHALF OF ALL SMALL PRIVATE TRANSIT OPERATORS IN THE UNITED STATES.

TESTIMONY OF

GORDON P. MACDOUGALL

EXECUTIVE DIRECTOR

RUBBER PAVEMENTS ASSOCIATION

BEFORE

THE HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

SUBCOMMITTEE ON SURFACE TRANSPORTATION

MARCH 3, 1994

Thank you, Chairman Rahall, for providing the Rubber Pavements Association with the opportunity to be represented at this hearing today. I serve as Executive Director of the Rubber Pavements Association, an organization comprised of companies which produce asphalt pavements and crack and joint sealants containing recycled rubber, companies which produce crumb rubber for use in asphalt pavements, and companies which support these two industries. I appear today on behalf of these companies to explain how crumb rubber from scrap tires is used in the United States and abroad to modify and improve asphalt pavements.

Crumb rubber was first tested as a modifier for asphalt pavements in the mid-1960's. Its use then and now has been based on the performance characteristics of crumb rubber as a modifier, not as a recycled material produced from scrap tires. The Federal Highway Administration (FHWA) has classified this product as a "modifier," and not as an "additive" because crumb rubber, properly used, enhances various properties of asphalt.

Currently over thirty States use crumb rubber modifier on a routine basis. Crumb rubber modifier is being used most widely as a crack and joint sealant, (it adds elastic properties to the sealants), as stress absorbing membrane inner-layers (SAMI's), and in hot mix asphalt (HMA) applications. These products, properly engineered and properly placed, are a cost-effective method of improving pavement performance and durability.

Approximately ninety-five percent of the crumb rubber modifier applied in the United States and abroad is referred to as the "Wet Process," a pre-reacted blend of specific amounts of crumb rubber (averaging 300 pounds per ton of asphalt binder) based on a time-temperature formula. The "Wet Process" is also termed "Asphalt-Rubber". While there are numerous, more recently developed processes incorporating crumb rubber from scrap tires in asphalt pavement, the basic Asphalt-Rubber formula, with some variations, has been the most widely accepted within the engineering community as a cost-effective process for modifying and improving asphalt pavements.

States like California, Arizona and Florida use Asphalt-Rubber as standard procedure in a variety of applications. Extensive experience has shown that Asphalt Rubber makes longer lasting, lower maintenance roads. The use of crumb rubber in asphalt pavements retards reflective cracking, reduces the propensity for rutting, reduces surface noise, retards the aging process, and increases pavement flexibility.

California, based on its extensive experience with crumb rubber modifier, is expected to use nearly one million tons of Asphalt-Rubber hot mix in 1994, (in approximately ten percent of its asphalt paving applications). In California, Asphalt-Rubber is used at a reduced pavement lift thickness, by as much as one-half,

with equivalent structural strength to greater thicknesses of conventional hot mix asphalt. Attached to my testimony is a copy of FHWA-approved design guidelines issued by CALTRANS which allows for reduced pavement lift thicknesses, with the same or better performance results, when Asphalt-Rubber is used in gap graded pavement rehabilitation applications.

Florida Governor Lawton Chiles recently announced a program to use a pre-reacted crumb rubber modifier process in 100% of the State's surface treatments in 1994. The Florida Department of Transportation, like CALTRANS, is a leader in pursuing the use of innovative materials to improve pavement performance and durability.

In Arizona, where Asphalt-Rubber was developed, the State is using the material in numerous applications in all climactic conditions. Based on Arizona's experience, Asphalt-Rubber has the capacity to improve pavement performance in extreme hot and cold temperature conditions.

In 1989, the U.S. Army Corps of Engineers teamed with industry representatives to conduct research on construction productivity with Asphalt-Rubber. This two-year study concludes that Asphalt-Rubber ages more slowly and is more resilient than conventional asphalt alternatives. The Army Corps of Engineers recently

testified before the House of Representatives on their experience with Asphalt-Rubber. Dr. Robert Oswald, Army Corp Director of Research and Development, had the following to say about the performance of crumb rubber as an asphalt pavement modifier. "We have demonstrated that we can increase the durability of asphalt pavements by including crumb rubber from tires. We can improve the safety of that surface because it also gives you an increased coefficient of friction."

It is essential that the enhanced performance characteristics of CRM technologies are recognized when comparing the cost effectiveness of these materials with conventional asphalt. Mr. Gene Morris, P.E., author of a paper issued and peer-reviewed by the American Society for Testing Materials titled True Cost Effectiveness of Asphalt-Rubber Paving Systems, concluded that, "If systems are compared that truly provide solutions to the problems, then the use of Asphalt-Rubber can provide a first cost effectiveness in a majority of the cases. Asphalt-Rubber will provide life cycle cost effectiveness virtually 100 percent of the time."

Cost is perhaps the least understood and most controversial aspect of Asphalt-Rubber. A simple comparison of Asphalt-Rubber and conventional asphalt materials costs will show that Asphalt-Rubber material costs are higher. While this is true, these types of

comparisons, which have been conducted by AASHTO, are fatally flawed because they do not calculate savings resulting from alternative designs allowed using Asphalt-Rubber and they do not calculate life-cycle cost savings. Additionally, AASHTO cost calculations provided to Congress do not reflect market changes resulting from increased competition, economies of scale and the expiration in late 1992 of the primary Asphalt-Rubber patents.

Opponents of the minimum use requirement in Section 1038, Mr. Chairman, have claimed that there may exist emissions and\or recyclability problems with this material. Mr. Chairman, these same concerns have been raised publicly for nearly ten years while evidence has mounted that they are unfounded. Attached to my testimony are copies of research findings demonstrating that crumb rubber modifiers are safe and fully recyclable. The FHWA and the USEPA conducted an eighteen month review of twenty years of research conducted on crumb rubber modifiers. They have found no evidence supporting these unfounded claims.

These unproven claims must be viewed in the context of standards being applied to other asphalt modifiers and in the context of the minimum use requirement. There has been no research conducted on the safety or recyclability of polymer-modified asphalt pavements, yet these newer materials are being widely accepted and used by State Departments of Transportation and within industry. There has

been a double and unfair standard applied to crumb rubber modifiers relative to polymer modifiers. Opposition to the minimum use requirement has unfortunately and inappropriately been translated into opposition to greater use of Asphalt-Rubber and other crumb rubber modifier products.

Improved performance using CRM technologies has only been accomplished through a commitment to innovation by leaders in certain State Departments of Transportation and in the asphalt pavement contracting community. As with any emerging technology, there exists a learning curve for those dedicated to perfecting a superior technology.

As we have learned through the FHWA's Strategic Highway Research Program (SHRP), there are numerous factors which contribute to a successful asphalt pavement. These factors include mix design, asphalt composition, aggregate mix and source and many others. Not all states have experienced the increased performance associated with use of crumb rubber modifier. There have been project failures resulting from inexperience with these products, poor design specifications and inappropriate construction methodologies.

The goal of Section 1038 of the 1991 Intermodal Surface Transportation and Efficiency Act (ISTEA P.L. 102-240) is to encourage greater use of these proven products--to transfer use of

these technologies. As this Subcommittee considers adjusting Section 1038, the Rubber Pavements Association hopes that it will not lose sight of this critical technology transfer goal. If the provision is adjusted, our Association urges the Subcommittee to add the objective of encouraging the proper use of these technologies once transferred among States and within industry.

If requested, our Association would be pleased to provide recommendations on various methods of reaching these goals.
Thank you for your attention to the interests of the members of the Rubber Pavements Association.

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STATEMENT OF DALE J. MARSICO
CHIEF ADMINISTRATOR
BRAZOS TRANSIT SYSTEM
College Station, Texas

On Behalf of

COMMUNITY TRANSPORTATION ASSOCIATION OF AMERICA
Washington, D.C.

Before the

SURFACE TRANSPORTATION SUBCOMMITTEE
of the
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

March 3, 1994

Statement of Dale J. Marsico
Chief Administrator
Brazos Transit System
College Station, Texas

On behalf of

COMMUNITY TRANSPORTATION ASSOCIATION OF AMERICA (CTAA)

Before the

SURFACE TRANSPORTATION SUBCOMMITTEE
of the
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

Mr. Chairman, members of the Committee, my name is Dale Marsico, and I am the Chief Administrator for Brazos Transit System (BTS) based in College Station, Texas. BTS is a general public transit system which was founded in 1974. We receive funding for operations through the Federal Transit Administration (FTA), the Texas Department of Transportation (TxDOT) and local government entities. BTS is a political subdivision established under the Texas Interlocal Cooperation Act of 1971, as amended.

BTS specializes in providing general public transportation in rural and small urban areas in Texas. We operate over 100 buses, trolleys and vans in 14 counties. Our operating area encompasses over 13,000 square miles in central and eastern Texas, serving approximately 87 communities with a combined population of over 800,000 persons. Each year we provide transportation to more than 1.2 million persons and travel in excess of 2 million miles.

BTS is truly a community transit system, as it custom tailors its services to each of the local areas it serves. Its goal is to work with localities to design, develop and implement public transit services which meet the specific mobility needs and

character of the community. Public transit plays a major role in Texas for those we serve and the communities they live in. BTS has long recognized that the issue of access is vital for our riders, as well as for the businesses and industries we serve that help create opportunities. In fact, for every one dollar we spend in public transit, another seven dollars is generated in our local economy.

Brazos Transit has been a leader in the establishment of rural and small urban transit systems in Texas and has developed and operated the following small urban systems:

- The Interurban Trolley System serving Bryan/College Station;
- Brazos Valley Transit serving the seven counties in the Brazos Valley Region;
- The Huntsville Transit System serving Huntsville, Texas and its surrounding communities;
- Lufkin Transit System serving Lufkin and Diboll Texas and the surrounding areas;
- Montgomery County Transit serving Montgomery County including the Woodlands Express Park and Ride Commuter Program.

RTS is currently engaged in providing new service to residents of Orange, Trinity, Houston, Shelby and Harding Counties.

I am appearing today as a member of the Legislative Committee of the Community Transportation Association of America (CTAA), a national organization of more than 800 rural, small urban and specialized transportation providers. Our association advocates

on behalf of the particular needs and problems of the nation's small and medium-sized transportation providers and more than 75 million transit dependent Americans.

From that perspective, I will testify today on some of the continuing concerns that the small urban operators face.

Operating Assistance for Small Urban Areas

Operating assistance is a matter we struggle with year after year, particularly where our small Section 9 members are concerned. As you know, rural and small urban transit is the most dependent on Federal funds for its operations. The Section 18 and Section 9(a)(1) network relies on Federal Transit Administration (FTA) funds for 25 percent of its operating budget. For urbanized areas of 200,000 to a million in population, the figures drops to half, and for systems serving areas of a million or more, FTA funds make up only 4 percent of the total.

We are very pleased that the Administration's proposed budget for FY '95 would, for the first time, set formula assistance at the full levels which this committee authorized. And please understand that we in no way want to jeopardize these proposed levels of funding because formula funds represent the heart of the transit program.

However, we are opposed to reductions in operating assistance, particularly across-the-board cuts. Our opposition grows out of the fact that Federal operating assistance continues to be critical for our operations and that across-the-board reductions do not affect everyone equally. For example, the 25 percent reduction in operating assistance, along with the 19 percent increase in formula funds, would result in a three-to-one gain for the largest systems, a two-to one gain for the medium urban

systems, and only a one-to-one ratio for the smallest urban systems. That is to say that total funding for the largest urban areas will increase about $3 for every $1 reduction in operating assistance, while for the small urbans, the total increase is roughly equal to the reduction on operating funds.

This presents a major problem to small transit systems where operating funds are a needed resource in the provision of services. In our own state there are 20 such transit agencies which receive operating assistance under the small city criteria. The Texas Transit Association recently surveyed its smaller operators and found that each of these providers would significantly reduce their services if across-the-board reductions were implemented. Such reductions would seriously impede the tremendous progress we're all making toward compliance with the Americans with Disabilities Act.

Reducing operating assistance would mean major disruptions for most of us, in addition to reduced service levels. The fact is that our options for making up the losses financially are very limited. Some might suggest raising fares; others might advocate greater local assistance. We must say regretfully that this is not possible under this time framework. First, the elderly and disabled are guaranteed by Federal law a 50 percent reduction in the costs of fares charged to all transit users in smaller operations. In addition, a fare increase of the proportion necessary to offset this reduction would have a significant impact on low-income riders not protected by this discount. Secondly, our state has made great strides in providing assistance to smaller transit systems in the last six years. However, considering the nature of our local legislative process--based on a two-year legislative cycle--we would be unable to even bring this before our state government before the change was implemented. And, as you have heard so often, the local situation remains extremely tight, particularly when the

timing of this change is considered.

In a year when access to jobs and medical services will be so key to the success of Administration initiatives, we certainly want to do all in our power not to cut services.

For the above reasons, CTAA recommends no cuts in operating assistance, eliminating the "cap" on the small Section 9 systems and allowing more flexibility for the exchange of capital for operating dollars at the local level.

Regulatory Relief

Again for the smaller urban systems, Federal regulations often present major problems. For example, we have been struggling to comply with the Americans with Disabilities Act and the Clean Air Act, and now we must meet the requirements of drug and alcohol testing regulations. With all these costly mandates and no special funding for their implementation, the smaller systems simply cannot withstand the loss of operating assistance at this time and continue to contribute to the economic development and well being of their communities.

In addition, smaller transit systems need assistance in meeting the proposed alcohol and drug regulations. My recent visit to a major industry trade show allowed me to talk with vendors who sell alcohol testing machines. While I fully support the intent of drug and alcohol testing in transit, I was shocked by the cost of this equipment and really wonder how small transit systems are going to be able to comply with these very costly regulations, not to mention the associated litigation that will follow these proposals. There really must be some relief for these smaller systems which do not have the flexibility in their budgets to comply with all of these unfunded mandates. We would urge the committee to study the impact of the drug and alcohol regulations

on the small systems, hold hearings if possible, and try to offer some relief to these operators who need to focus their very limited resources on getting people where they need to go.

Planning for Rural and Small Urban Areas and Access to Flexible Funds

ISTEA holds real promise for increasing the share of resources going to rural and small urban areas, but again we have some major concerns. Much of the planning focuses around Metropolitan Planning Organizations (MPO), but many of us do not fall under current MPO jurisdiction. This is a serious problem for rural states and local rural areas, where public transportation is outside of this planning picture. We also suspect that the minor use made of flexible funds for small transit systems is due in part to the relative lack of ongoing transit planning resources in those areas. Public transit needs are not being identified or quantified in a timely manner, so the competition for scarce funding remains unbalanced.

We would urge the committee to look at the possibility of requiring some Rural Planning mechanism to oversee long-term planning and implementation of transit projects outside of the scope of the MPOs and that such mechanisms be required to consider both short and long-term needs of the public transit agencies.

On behalf of our members and the many transit dependent people we serve all across America, I very much appreciate the opportunity to testify before you today. I hope that the recommendations that I and my colleague, Jack Gregory, have addressed will be seriously considered by the committee as it searches for ways to strengthen and improve ISTEA and the nation's National Transportation System.

TESTIMONY BEFORE THE
HOUSE OF REPRESENTATIVES SUBCOMMITTEE ON
SURFACE TRANSPORTATION
FOR THE HOUSE COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION

MARCH 3, 1994

MR. CHAIRMAN:

MY NAME IS KYLE MARTIN, PRESIDENT OF MAYFLOWER CONTRACT SERVICES AND A BOARD MEMBER OF THE AMERICAN TRANSIT SERVICES COUNCIL. ON BEHALF OF THE COUNCIL'S MEMBERS, I WISH TO EXPRESS OUR APPRECIATION FOR THE OPPORTUNITY TO DISCUSS SEVERAL KEY ISSUES WHICH HAVE A SIGNIFICANT IMPACT ON THE EFFECTIVE AND EFFICIENT USE OF TRANSPORTATION FUNDS OVER THE NEXT SEVERAL YEARS.

I AM HERE TODAY TO SHARE OUR CONCERNS ABOUT THE PROPOSED RECISION OF THE FEDERAL TRANSIT ADMINISTRATION'S PRIVATE ENTERPRISE PARTICIPATION GUIDANCE. IF THIS POLICY IS RESCINDED, SUITABLE REPLACEMENT POLICIES MUST ACHIEVE -

- MORE EMPHASIS ON THE TRANSIT RIDER,
- GREATER UTILIZATION OF LIMITED TRANSIT DOLLARS,
- MEANINGFUL INCLUSION OF THE PRIVATE SECTOR "TO THE MAXIMUM EXTENT FEASIBLE" AND
- BETTER INTEGRATION OF TRANSIT SERVICES IN THE COMMUNITY.

LET ME FIRST PROVIDE YOU WITH A BRIEF BACKGROUND. MAYFLOWER CONTRACT SERVICES, PROVIDES COMPETITIVELY CONTRACTED TRANSIT SERVICES TO OVER 50 COMMUNITIES ACROSS AMERICA. THE NEWLY FORMED AMERICAN TRANSIT SERVICES COUNCIL'S MEMBERSHIP REPRESENTS COMPANIES THAT ARE PROVIDING TRANSIT SERVICES, UNDER COMPETITIVE CONTRACT, TO MORE THAN 150 COMMUNITIES.

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DURING THIS PAST YEAR, OUR MEMBERSHIP EMPLOYED A HIGHLY DIVERSE WORKFORCE OF MORE THAN 8,000 PEOPLE: MORE THAN HALF OF THESE EMPLOYEES ARE MINORITY AND/OR WOMEN. A SIGNIFICANT PORTION OF OUR WORK FORCE IS REPRESENTED BY SIX DIFFERENT UNIONS.

THE COUNCIL'S MISSION IS TO ENCOURAGE COMPETITION AND THE DEVELOPMENT OF APPROPRIATE INCENTIVES TO INCREASE THE EFFICIENCY AND EFFECTIVENESS OF TRANSIT SERVICE FOR THE BENEFIT OF THE TRANSIT RIDER, THEIR COMMUNITY AND THE TAXPAYER. THE COUNCIL'S GOAL IS TO BE A BENEFICIAL PARTNER IN THE PROVISION OF PUBLIC TRANSIT SERVICES THROUGH COMPETITIVE CONTRACTING, WITH OUR MEMBERSHIP PROVIDING THE BEST QUALITY SERVICE IN THE MOST EFFICIENT MEANS POSSIBLE.

OVER THE PAST SEVERAL YEARS, ONE KEY FACT HAS BEEN CLEARLY DEMONSTRATED: **PUBLIC TRANSIT SERVICE, WHETHER IT BE FIXED ROUTE OR DEMAND RESPONSE IS PROVIDED MORE COST EFFECTIVELY WHEN IT IS COMPETITIVELY CONTRACTED.** THE ACCOMPANYING DOCUMENTS THAT I ASK YOU TO MAKE PART OF THE RECORD PROVIDE AMPLE EVIDENCE OF THIS POINT.

I WISH TO MAKE IT CLEAR THAT I AM NOT HERE SIMPLY TO STATE THAT PRIVATE TRANSIT SERVICES ARE MORE COST EFFECTIVE THAN PUBLICLY PROVIDED SERVICES. **OUR KEY POINT IS THAT THE DISCIPLINE OF COMPETITIVELY BIDDING TRANSIT SERVICES, USING FULLY ALLOCATED COSTS, UTILIZES MARKET FORCES TO ENSURE THE MOST EFFECTIVE USE OF LIMITED TRANSPORTATION RESOURCES.**

WITHOUT THIS DISCIPLINE, THERE ARE NO SIGNIFICANT INCENTIVES, SHORT OF TAXPAYER REVOLTS, TO ENCOURAGE THE MOST EFFECTIVE USE OF RESOURCES.

THE FTA PRIVATE ENTERPRISE PARTICIPATION POLICIES HELPED ENCOURAGE THIS DISCIPLINE AND HAVE PROVIDED A FRAMEWORK FOR THE TRANSIT COMMUNITY TO MEET THE REQUIREMENTS IN THE LAW

THAT CALLS FOR THE SECRETARY OF TRANSPORTATION TO FIND THAT PRIVATE MASS TRANSPORTATION COMPANIES, TO THE MAXIMUM EXTENT FEASIBLE, ARE INCLUDED IN THE PLANNING AND DELIVERY OF TRANSIT SERVICES.

THE AMERICAN TRANSIT SERVICES COUNCIL IS CONCERNED THAT WHILE THERE HAS BEEN A DEBATE ENGENDERED BY THE PROPOSED RECISION OF THE PRIVATE ENTERPRISE PARTICIPATION POLICIES, THERE HAS NOT BEEN A DIALOGUE ESTABLISHED TO OBJECTIVELY LOOK AT THE CHALLENGES FACING BUS TRANSIT: DECREASING RIDERSHIP WITH INCREASING OPERATING COSTS. THE REVERSAL OF THESE TRENDS WILL REQUIRE THE COOPERATION OF ALL PARTICIPANTS IN THIS INDUSTRY. IT IS IN THIS SPIRIT THAT THE COUNCIL'S MEMBERS WISH TO PROVIDE A POSITIVE CONTRIBUTION TO IMPROVING THE EFFECTIVENESS OF TRANSIT SERVICES.

THE COUNCIL SUGGESTS TO YOU THAT THERE ARE THREE KEYS TO REVERSING THE HISTORICAL TRANSIT TRENDS:

- ADOPTING CRITERIA TO EVALUATE POLICY DECISIONS THAT PUT THE RIDER AND TAXPAYER FIRST;
- UTILIZING MARKET FORCES TO INCREASE THE EFFECTIVE PROVISION OF TRANSIT SERVICES AND
- PROVIDING INCENTIVES TO ENCOURAGE THE USE OF MARKET FORCES IN LOCAL DECISION MAKING.

WE BELIEVE THE FOLLOWING SHOULD BE THE KEY CRITERIA THAT GUIDE POLICY TO MAKE PUBLIC TRANSIT A MORE VIABLE COMPONENT OF THE OVERALL TRANSPORTATION MIX.

a. THE CONSUMER OF TRANSIT SERVICE MUST BE GIVEN TOP PRIORITY, NOT ONLY IN BEING PROVIDED A HIGH QUALITY OF SERVICE, BUT ALSO IN THE MOST EFFICIENT DELIVERY OF THAT SERVICE. THIS HOLDS TRUE FOR THOSE INDIVIDUALS WHO ARE TRANSIT DEPENDENT, AS WELL AS FOR THOSE WHO RIDE TRANSIT BY CHOICE.

b. THE TAXPAYER SHOULD HAVE A CLEAR UNDERSTANDING OF THE COST AND BENEFIT OF THE TRANSIT SERVICES SHE OR HE IS HELPING TO SUBSIDIZE.

c. GIVEN TODAY'S DEMANDS ON OUR COMMUNITIES, TRANSIT SERVICES SHOULD PROVIDE MOBILITY AND ACCESS TO INDIVIDUALS THAT ENHANCE THE OVERALL LIVABILITY OF THE COMMUNITY. THERE IS A CRUCIAL AND VITAL ROLE FOR PUBLIC POLICY OBJECTIVES, (INCLUDING PROVIDING ACCESS FOR THOSE WHO DO NOT HAVE TRANSIT OPTIONS) TO BE ACCOMPLISHED THROUGH THE PROVISION OF TRANSIT SERVICES.

THESE CRITERIA PROVIDE A FRAMEWORK THAT OBVIOUSLY BLENDS THE NEEDS OF INDIVIDUALS WITH THE PUBLIC POLICY OBJECTIVES OF A COMMUNITY AND COUNTRY AND THE FISCAL REALITIES OF THE 90's. WITHOUT THE PRIVATE ENTERPRISE PARTICIPATION POLICIES, THAT BLENDING OF INTERESTS LACKS THREE CRUCIAL INGREDIENTS.

FIRST, TO HELP MAKE THESE CRITERIA COME ALIVE, ONE OF THE MOST EFFECTIVE TOOLS THAT CAN BE USED IS THE DISSEMINATION OF INFORMATION THAT ALLOWS RIDERS, TAXPAYERS AND DECISION MAKERS THE OPPORTUNITY TO SEE HOW WELL THEIR INVESTMENTS ARE DOING, COMPARED TO OTHER SIMILAR TRANSIT AGENCIES AND WITH PRIVATE CONTRACTORS OF PUBLIC TRANSIT SERVICES.

SECOND, IT IS CRITICAL THAT THE INFORMATION PROVIDED TO THE PUBLIC AND DECISION MAKERS ALLOW FOR COMPARISONS ON AN "APPLES TO APPLES" BASIS. THIS CAN EASILY BE ACCOMPLISHED WITH THE DISSEMINATION OF THE FTA SECTION 15 INFORMATION AND THE USE OF "FULLY ALLOCATED COSTS" WHEN COMPARING SPECIFIC SERVICES.

THIRD, THE MOST EFFECTIVE AND EFFICIENT TOOL THAT CAN BE USED TO FACILITATE THE BLENDING OF THESE THREE CRITERIA IS RELATIVELY SIMPLE: YOU MUST UTILIZE MARKET FORCES. TODAY, THE

ONLY SIGNIFICANT MARKET FORCE AT PLAY IS THE NON TRANSIT DEPENDENT RIDER, "VOTING" WITH THEIR DOLLARS TO UTILIZE OTHER MODES OF TRANSPORTATION.

THE COUNCIL ENCOURAGES THE INTERJECTION OF MARKET FORCES INTO PUBLIC TRANSIT DECISION MAKING. THERE ARE A VARIETY OF WAYS THIS COULD BE ACCOMPLISHED. ONE OF THE MOST PRUDENT STRATEGIES WOULD USE FINANCIAL INCENTIVES TO REWARD THE TRANSIT AGENCIES AND COMMUNITIES THAT DEMONSTRATE THEY ARE PROVIDING THE MOST COST EFFECTIVE AND EFFICIENT LEVELS OF TRANSIT SERVICE.

IN SUMMARY, THE AMERICAN TRANSIT SERVICES COUNCIL URGES THE DEPARTMENT OF TRANSPORTATION, THE FEDERAL TRANSIT AUTHORITY, CONGRESS, STATES AND LOCAL COMMUNITIES TO CONSIDER ADOPTING THE FOLLOWING POLICIES:

- Allocate a percentage (e.g. 25%) of the federal transit operating subsidy on the basis of transit agencies demonstrating that they are improving their efficiency and effectiveness ratios as measured by Section 15 data, through competitive bidding, based upon fully allocated costs.

- Require each transit agency to provide an annual report to their service area which identifies the cost of services (including labor costs and all cross subsidies that are employed through pricing or service patterns) compared to other agencies of similar size and national averages.

- Institute the use of fully allocated costs as the basis for justifying all capital requests, including life cycle cost analyses that evaluate alternative methods of providing the service. This is relatively easy for agencies to do, given the reporting requirements they already meet through Section 15. This is further important in that capital investments drive the transit industry. It also makes excellent business sense.

THESE CONCEPTS ARE CRITICAL TO STRENGTHENING THE PROVISION OF PUBLIC TRANSIT OVER THE COMING YEARS. THEY ASSURE THE INTRODUCTION OF SUBSTANTIVE INFORMATION AND INCENTIVES THAT COMPLIMENT THE PROCESSES BEING CREATED THROUGH THE METROPOLITAN PLANNING ORGANIZATION (MPO) PROCEDURES. MORE

IMPORTANT, THEY ARE TOOLS THAT ENCOURAGE A REASONED DIALOGUE AT THE COMMUNITY LEVEL REGARDING THE ROLE AND LEVEL OF TRANSIT SERVICES.

IN CLOSING, MR. CHAIRMAN, I WOULD ASK THAT IN ADDITION TO THIS TESTIMONY AND THE SYNOPSIS OF THE COMMENTS SUBMITTED TO THE FTA REGARDING THE RECISION OF THE PRIVATE ENTERPRISE PARTICIPATION GUIDANCE, THE RECORD ALSO INCLUDE THE FULL TEXT OF OUR RESPONSE, INCLUDING AN ANALYSIS OF THE FULLY ALLOCATED COST METHODOLOGY.

AGAIN, ON BEHALF OF THE AMERICAN SERVICES TRANSIT COUNCIL, I WISH TO THANK YOU FOR LETTING US TESTIFY TODAY. I WILL BE PLEASED TO RESPOND TO ANY QUESTIONS YOU MAY HAVE, EITHER NOW OR LATER.

the American Transit Services Council

Washington, D.C. — The American Transit Services Council has joined other trade groups and advocates of competitive contracting for public transit services to challenge the Federal Transit Administration's (FTA) "Proposed Recision of Private Enterprise Participation Guidance." The Council's formal comments were presented to the FTA on January 24, 1994.

The Guidance was established by President Ronald Reagan in 1984 to allow private enterprise to play a larger role in the bidding process as well as in the provision of public mass transit. Now, the FTA proposes to abolish the ruling, believing that it puts too onerous a burden on the local communities it was designed to help.

Yet in 1984 and again in 1986, the FTA promulgated this guidance because "in spite of the statutory requirements, public decisionmakers do not fully or fairly consider the capacity of private enterprise to provide mass transportation services."

In 1986, the FTA further implemented its private enterprise guidance for sections 3 and 9 recipients in FTA Circular 7005.1 ("Documents of Private Enterprise Involvement in Sections 3 and 9 Programs") and for sections 16(b)(2) and 18 recipients in Chapter X of the FTA Circular 9040.1C ("Section 18 Program Guidance") and Chapter IV of FTA Circular 9070.1B ("Section 16(b)(2) Program Guidance"), declaring that the locally developed process for the consideration of private enterprise participation must include:

- notice and early consultation with private providers;
- periodic examinations of each route to determine if they could be more efficiently operated by a private enterprise;
- description of how new and restructured services will be evaluated to determine if they could be more effectively provided by private sector operation pursuant to a competitive bid process;
- the use of a fully allocated cost methodology in computing the public sector provider's costs as a factor in the private/public decision; and
- a dispute resolution process which affords all interested parties an opportunity to

object to the initial decision.

The FTA fails to spell out how the proposed recision will enhance statutory compliance. Instead, it is attempting to justify its proposed rescission as a way of "keeping with congressional intent that FTA carefully respect the prerogatives of local decision makers with regard to the participation of private enterprise in the provision of mass transit." Something which the current guidance already does.

The American Transit Services Council, a national association of private contractors of public transit services established in December 1993, recognizes the tremendous challenge facing the transit industry in America. According to FTA and other industry reports, the evidence of three trends is undeniable:

- Transit bus ridership nationwide is decreasing — dropping over 16%, from 1984 to 1990.
- During the same period, revenue miles have grown by only about 8%.
- Operating costs have increased by 46%.

The Council's members, as well as other public and private officials, firmly believe that one of the key weapons in fighting the deterioration of the country's mass transit systems is the participation of private enterprise in providing public transit services — and in fact, there has been a dramatic increase in the amount of contracted transit services since the implementation of the Private Enterprise Participation Guidance:

- From 1984 to 1990, contracted revenue miles increased from 40 million to over 64 million (a 60% increase), from 2.8% of total revenue miles to 4.2%.
- During the same period, the number of contracted passenger trips increased by 54%, from 48 million trips to 74 million — from .8% of the total to 1.5%.

This proven increase in contracted services since 1984 has not been a coincidence. The Private Enterprise Participation Guidance has been essential in encouraging — not demanding — local officials to consider competitive bidding as an effective means of providing transit services to their communities.

More to the point, and contrary to what the FTA argues in the proposed rescission, the current guidance always left the decision of whether to consider competitive bidding to the local transit authorities.

In fact, the continued existence of the Section 13(c) Labor Certification Requirement will leave local transit authorities with less flexibility in the absence of the private enterprise participation guidance.

* * *

The American Transit Services Council believes that the FTA will do a great disservice to riders of public transit if it does not openly recognize that local transit authorities, in their pursuit of offering the best transit service to the public, are forced to balance the interest of public-transit workers against the need to reduce costs and provide more services. Section 13(c) and the private enterprise participation provision of the FT Act have provided the means for balancing those two, often conflicting, interests.

To the extent the FTA stops enforcing the private enterprise participation provisions and continues to enforce (with the Department of Labor) the 13(c) requirement, the balance will inevitably be altered and riders of public transit will be harmed by the imbalance.

And, in fact, the FTA has not provided any evidence that it has assessed the economic or operational consequences of the proposed rescission — especially in light of the proposed decrease\elimination of federal transit operating subsidies.

Using the results of the modeling done in a FTA-commissioned study by the University of Pennsylvania, it is evident that the proposed rescission will provide yet another barrier to contractors who wish to compete with the local transit agencies.

While one might assume that if there are fewer federal dollars for operating subsidies that the local transit agencies will seek more services through competitive contracting, the model demonstrates exactly the opposite: "A reduction in the federal subsidy, under the conditions given here, will cause the rational decision maker, as modeled, to reduce the less costly contracted transit service, and thus total transit service rather than the more expensive authority delivered transit service." ("Privatization of Public Transit," University of Pennsylvania, May 1988, at 21.)

The study also looked at the behavior of an agency that did not contract out any services — also with surprising results: "The model predicts that contracted bus service will not be implemented when monetary constraints increase. However, authority delivered service, and

thus total bus service, will decrease."

These analyses become particularly relevant when we look at the economic realities facing public transit.

Federal funds for transit will decrease in absolute terms over the coming years. At the same time, significant increases in operating cost will force service cutbacks or access to additional revenues. The ability to significantly raise farebox revenues has been tested and found wanting. One source of additional revenue is the application of private capital to the transit industry. That application will not occur when the 'playing field' is skewed to exclude its participation.

* * *

The Council believes that what is needed is better enforcement of the existing guidance. Because, as we have seen, local transit agencies have continued to ignore the "Maximum Extent Feasible" Requirement.

The key to the problem at the community level is gaining access to accurate information that allows local elected decision makers, the transit riders and taxpayers the opportunity to evaluate, for themselves, the efficiency and effectiveness of the transit system.

The current tools utilized by the FTA through the Guidance have proven very useful, though imperfect in providing this type of information in a usable form to the public. Through the proposed rescission, the FTA, instead of bolstering the mechanisms for public disclosure, is eliminating the requirements and relying on the planning processes used by the MPO.

Moreover, the proposed rescission leaves the triennial reviews as the only mechanisms for public disclosure. Unfortunately, the triennial reviews are not effective means of public disclosure: While touted as a tool to provide the public with information about the transit agency, the reality is that it is an internal document that only sees the light of day if someone requests it through the Freedom of Information Act.

* * *

We find it alarming that the FTA proposes to throw all the serious public information

mechanisms out without any criteria to require and measure alternative methods of making this vital information readily available — or without ever undertaking a comprehensive study to compare the costs between public and private transit operators. (It is important to note that Independent studies {see attachment] reveal that private contractors are in fact frequently able to provide the same services for less money.) The mounting fiscal pressures on all levels of government will eventually force Congress and the Administration to reassess the underlying structure of the transit industry. What is painfully clear from the experience of other industries, i.e., the power and telecommunication industries, is that the cost of restructuring an industry is often greater because the underlying economic principles driving the industry were not taken into account in the incremental formation and/or execution of federal policy.

There is no need to exacerbate the service inefficiencies, cross subsidizations and other economic conditions which will eventually cause a significant restructuring to occur. Instead, using economic principles that have been well proven to encourage good economic decision making to facilitate public policy objectives should be encouraged.

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Independent Studies

The broad range of studies have found significant cost savings and efficiencies by private transit operators compared to public operators, including:

- Los Angeles: a Price Waterhouse cost comparison determined that private contractors provide services at a cost averaging 60% lower than the fully allocated costs of the public transit authority they have replaced.

- Denver: a 1991 study by KPMG Peat Marwick determined that on a long-term, fully allocated cost basis, privatization was estimated to result in savings of 31%.

- San Gabriel Valley, L.A. County: an Ernst & Young study found that long-term costs are 43% less under a private contractor than under a public authority. A 1991 Coopers & Lybrand study found that on a marginal cost basis there is not a cost difference. A 1992 study by Jonathan Richmond of MIT, commissioned by the L.A. County Transportation Commission to evaluate the Ernst & Young and the Coopers & Lybrand studies, concluded that while on a short-term basis it might be true that the fully allocated cost methodology is not necessarily an accurate way to determine cost savings, it is certainly much more accurate than marginal costs in determining long-term cost savings. This same conclusion was reached by John OLeary of the Reason Foundation in a 1993 study.

A study by Roger F. Teal of the Institute of Transportation Studies at the University of California at Irvine found the following savings:

- San Francisco (BART District): 26% in actual cost savings in 45 fixed route buses that were contracted out to a private provider.

- Snohomish County, Washington: 22% in actual costs savings in 58 fixed route buses contracted out.

- Johnson County, Kansas: 39% in actual cost savings in 21 fixed route buses that were contracted out.

- Yolo County, California: 37% in actual cost savings in 21 fixed route buses that were contracted out.

- Fairfax County, Virginia: 39% in actual cost savings in 33 fixed route buses that were contracted out.

- Fort Wayne, Indiana: 22% in actual cost savings for contracting out the drivers for 86 buses.

Roger F. Teal has also documented the following long-term cost savings:

- Houston: 31.9% in actual cost savings between 1982 and 1988 for contracting out commuter bus service and 18.1% in actual costs savings between 1979 and 1988 from contracting out handicapped Dial-A-Ride services.

- San Diego County: 27.4% in actual costs savings between 1981 and 1988 from contracting out fixed bus routes.

- Golden Gate Transit: 23.6% in actual cost savings between 1982 and 1988 from contracting out commuter bus services.

- Orange County Transit: 5.2% in actual costs savings between 1982 and 1989 from contracting out Dial-A-Ride services.

- Phoenix Transit: 16% in actual cost savings between 1978 and 1988 from contracting

out Sunday Dial-A-Ride services.

- El Cajon, California: 21.9% in actual cost savings between 1973 and 1988 from contracting out Dial-A-Ride services.

Data from the 1991 FTA Section 15 National Transit Summaries and Trends documents the same conclusions. When comparing Bus Mode Purchased Transportation and Directly Operated services by operating expense per passenger mile, purchased services achieve an $.11 reduction per passenger mile. (See "1991 Nation Transit Summaries and Trends")

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nsa National Stone Association

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Statement Of

Paul C. Mellott, Jr.

On The National Highway System

For

The National Stone Association

March 3, 1994

Before

The House Subcommittee on Surface Transportation

Statement Of
Paul C. Mellott, Jr.
On The National Highway System
For
The National Stone Association
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Before
The House Subcommittee on Surface Transportation

I am Paul C. Mellott, Jr., Executive Vice President of H.B. Mellott Estate, Inc. in Warfordsburg, Pennsylvania. My appearance today is on behalf of the National Stone Association where I serve as Vice Chairman of the Board of Directors. I am accompanied by William D. Kelleher, NSA's Vice President of Government Affairs.

As President Clinton noted in his Executive Order establishing new principles for federal infrastructure investments, a well-functioning infrastructure system is vital to sustain economic growth, to enhance the quality of life in our communities, and to protect our environment. To develop and maintain its infrastructure facilities, our nation relies heavily on investments by the Federal Government. Our nation will achieve the greatest benefits from its infrastructure facilities if it invests wisely and continually improves the quality and performance of its infrastructure programs. The National Highway System (NHS) has rightly been labeled as the backbone of our transportation infrastructure system by U.S. DOT Secretary Federico Pena and is one of the wisest and most effective investments we can make as a nation.

NSA also wants to commend you, Chairman Rahall for holding these hearings. You were in the first row when Federal Highway Administrator Rodney Slater presented the Administration's National Highway System proposal and you are again in the forefront of Congressional efforts for timely passage of the NHS.

Mr. Chairman, NSA recommends the following:

- Passage of the Administration's NHS proposal focusing on the development of a national highway system that meets our intermodal transportation needs during the 103rd Congress.

- Restoring the $10.1 billion shortfall in ISTEA implementation funding that has occurred since the Act's adoption. These funds should be focused on building mobility capacity in our highway system and constructing the connections between our highway network and other modes of transportation.

- Providing guidelines and assistance to MPOs (Metropolitan Planning Organizations) that will help them balance local and regional needs with the NHS purposes of linking major population and economic centers that

stretch across local and often state boundaries.

- Providing mechanisms that will recognize market-based approaches to building and managing infrastructure and promote public-private partnerships when opportunities to encourage economic growth and job creation can be enhanced.

- Working to ensure that gasoline user fees are put to transportation purposes and not diverted from their intended use. While the last budget act calls for eventual return of 2.5 cents of gas taxes to the Highway Trust Fund, 4.3 cents will continue into the late 1990s to go for deficit reduction. At a time when our infrastructure's physical and financial deficit is growing we should not be taking some $7 billion a year away from highway uses for non-transportation purposes.

- Removing product requirements such as the mandated use of crumb rubber from the NHS.

The Interstate System conceived in the 1950s was a magnificent achievement. Now we need to build an interstate mobility system for the 1990s and beyond. As both a highway user and principal supplier to the construction of our nation's road network we believe adoption of an adequately funded NHS should be a top priority for the 2nd Session of the 103rd Congress. The mission of building a national transportation system to support a mobile and productive nation is what inspired President Eisenhower and Congress in 1956 to begin the National System of Interstate and Defense Highways. Today this same mobility mission goes on along with federal responsibility in meeting it. The challenge of providing an interstate transportation network that fulfills the needs of a dynamic American society and economy endures. The National Highway System is the best available tool in our generation in meeting the test of a global economy.

NHS and the Nation's Economy

America's transportation infrastructure and especially its highway network supports a high standard of living and a rapidly changing economy. During the legislative process that lead to the passage of ISTEA (the Intermodal Surface Transportation Assistance Act) a full accounting of the problems of our infrastructure was presented. In developing the NHS, we believe that Congress must not only correct these existing difficulties, but more importantly Congress and the Administration must look to the future in formulating National Highway System legislation. Specifically:

Jobs and Population Growth

The nation's changing population counts and forecasts remind us that America is not standing still. While absolute growth continues to be focused on the sunbelt, all metropolitan areas except one are expected to see some growth between now and the

year 2000. Approximately 19 million new jobs will be needed by the turn of the century to accommodate our population growth. The U.S. Department of Commerce has projected the growth in public works investment and especially in highways must be increased by one-third more if our economy is to sustain the industries needed to provide these jobs. The NHS must play a key role in helping to stimulate and support these jobs. MPOs must recognize that as the workforce and employment centers spread across a region, the interplay between national, regional, state, and local transportation needs and networks must be coordinated.

Economic and Geographic Restructuring and the NHS

While the exact nature of the link between transportation infrastructure is the subject of ongoing research, there is no doubt that infrastructure transportation services complement private capital investment and are necessary for economic growth. The old business saying that nothing happens until you make a sale has the corollary that if you want to keep customers you better deliver your products on time. A continuing underinvestment in our national highway network will retard economic growth and shift jobs and economic activity out of America into a global market place. Increasingly, state and local economic development efforts are highlighting the quality of their workforce and education system and the ability of their transportation network to reach world markets. If our transportation system will provide reliable and efficient deliveries, computer integrated flexible manufacturing and inventory control systems can provide cost savings equivalent to long run production plants. Clearly, this application of technology demonstrates the inter-relationship between private and public capital. NSA strongly urges you to make the public investments in the NHS that provide the foundation for these private capital innovations.

NHS and the Crushed Stone Industry

As a capital intensive industry, a reliable and predictable market for our product creates the best environment for investment decisions for both acquiring reserves of aggregate deposits and purchasing plants and equipment. To provide quality aggregate at reasonable prices we need to work together with the public sector to smooth the large fluctuations in the infrastructure construction market. Timely passage of the NHS with adequate funding will give aggregate producers a clear signal that the Federal Government is committed to building and maintaining our nation's highway infrastructure.

The crushed stone industry has traditionally been cyclical in nature. Approximately half its demand is based on building construction related to housing and commercial development which is driven by shifts in interest rates. The other half of the aggregate industry is based on public works which is driven by the political process.

The imputed cost for the crushed stone industry from the wide fluctuations in public support for infrastructure is estimated to be approximately $250 million to $325 million per year based on the standard analysis of the cost to the construction industry

of cyclical variations in demand and an overall crushed stone annual market of $5 billion. However, this cost is not evenly distributed because of the highly localized nature of crushed stone markets. Costs will fall disproportionately on those areas where public support for infrastructure spending has wide fluctuations or investments in highways and other public works are highly dependent on unreliable state and federal programs.

Let me briefly give you some examples of how cyclical fluctuations impact our industry:

- In determining site suitability, the ability to accurately forecast long-term market potential effects investment determinations ranging from the building of access facilities for a site to the size of a site and the amount of reserves to be purchased as part of the initial land acquisition process. Also market forecasts will determine how much overburden can be economically removed before a commercially viable quarry can be developed.

- The production of aggregate by its very nature is a long-term industry. Issues such as rate of return comparisons to other investments, the size of plant to be established, whether new or used equipment should be purchased or alternatively whether a portable crushing plant should be employed instead of building a permanent facility are all part of capital cost considerations.

- Labor is the third and most important input influencing production. Labor is most important because the effective use of the other two factors depends completely on the skill of the labor force. In every aspect of the business, labor can make the difference between a highly profitable enterprise and one that is marginal or unprofitable.

Layoffs carry the risk that skilled employees will find other suitable full-time employment. For our industry to invest in training and developing employees and to ask our employees to make a commitment in developing their careers as part of our operations, we need to be able to offer them jobs with a long-term future for themselves and their families.

Summary and Conclusions

The National Stone Association strongly supports passage of the Administration's NHS proposal. We recommend that Congress take into consideration the concepts contained in the President's infrastructure investment principles, especially the recognition that there are non-quantifiable benefits in infrastructure investments such as creating new opportunities through matching private and public capital. We urge you to be optimistic about the future of our nation and to build a national highway system that will let our country grow both socially and economically.

Finally, Mr. Chairman we urge you to keep this legislation focused on building a national highway system that can meet our intermodal transportation needs. The NHS is not the place to impose product standards like the use of crumb rubber or to settle local disputes through the inclusion of projects that do not serve a national purpose. On behalf of the 72,000 working men and women and 1,000 quarries that make up the National Stone Association we urge you to pass a clean NHS program and to fully fund it as called for in ISTEA including the $10 billion authorized for the beginning years of ISTEA, but not yet appropriated.

National Trust for Historic Preservation

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Testimony of

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before the

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Thank you, Mr. Chairman and members of the Subcommittee, for the opportunity to appear before you today to express the views of the National Trust for Historic Preservation on the proposed adoption of the National Highway System, as required under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). As one of the founding members of the Surface Transportation Policy Project, the National Trust is pleased to be a part of this panel with other STPP members, and our testimony reflects the views of the broad national coalition that STPP represents. We strongly supported the passage of the ISTEA legislation in 1991 and together we have been working with local communities across the country to ensure that the new law is implemented as effectively as possible.

The National Trust was chartered by Congress in 1949 to lead the private sector historic preservation movement. Today, we represent a quarter of a million individual members nationwide, along with thousands of local preservation organizations. Our mission is to foster an appreciation of the diverse character and meaning of our American cultural heritage and to preserve and revitalize the livability of our communities by leading the nation in saving America's historic environments. With the strong support of our members, the National Trust works to protect significant historic sites and to advocate historic preservation as a fundamental value in programs and policies at all levels of government.

The National Trust's overriding concern about the National Highway System is the potential impact of this program on the quality of life in local communities across the country. ISTEA represents a huge step forward toward developing a transportation program that enhances, rather than detracts from, the livability of our communities. Congress must ensure that the NHS program does not undermine this progress. Therefore, it is essential for

the NHS legislation to include safeguards that will protect the quality of life in local communities and empower them with the flexibility necessary to meet their transportation needs in a manner that helps to foster a sense of place.

1. Designation of the NHS Should be Driven by Compliance with all Federal Environmental and Planning Processes Required by Law.

The National Trust and the other members of the Surface Transportation Policy Project has serious concerns with the process that has been used for designating the NHS. States and Metropolitan Planning Organizations have provided their recommendations for NHS designation, including new projects, before completing the statewide transportation planning process spelled out under ISTEA. In our view, the ISTEA planning process should determine and inform the selection of the NHS. Instead, NHS designation has proceeded on an independent track, and the result is likely to skew the planning process.

The proposed inclusion of new projects in the NHS is particularly troubling. Approximately two percent of the mileage on the proposed NHS (2,500 to 3,000 miles) represents new facilities. As we learned from the Interstate program, massive new highway construction, especially in urban areas, is damaging to the environment and devastating to neighborhoods. In response to the destruction and urban blight caused by freeway construction, Congress placed special responsibilities on the Department of Transportation for protecting sites that would otherwise be most threatened by transportation projects.

The Department's fundamental charter, dating back to the creation of the agency in 1966, declares a national policy that "special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." To implement this policy, Congress included Section 4(f) of the Department of Transportation Act, which prohibits federal approval of any transportation project that would harm historic places, parks or refuges, unless there is no "feasible and prudent alternative" to doing so and, even then, the project must include "all possible planning to minimize harm" to the protected sites.

Section 4(f) remains a critical piece in the foundation of our national transportation policy. The NHS should be consistent with this mandate, not undermine it. The FHWA has well-established procedures for ensuring that the mandate of Section 4(f) is satisfied, along with other federal environmental laws such as the National Environmental Policy Act, prior to approving any project. Those procedures -- and more importantly, the standards of Section 4(f) itself -- should not be preempted by the NHS. Certainly Congress never intended that the NHS system be above the law. Therefore, the National Trust believes it is not appropriate for the NHS to include corridors or segments that have not already received final approval and clearance under Section 4(f). In the absence of such a safeguard, the NHS designation process could be used to circumvent environmental laws by giving an imprimatur of legitimacy to projects on a state "wish list" that would not otherwise pass muster legally. This could have the effect of biasing the ultimate environmental review process.

According to FHWA, the new projects proposed for inclusion in the NHS are either on "existing State plans" or "in some stage of implementation, such as design, right-of-way acquisition, or construction." To the extent this description is accurate, inclusion of those new facilities on the NHS would be appropriate, because projects in the process of implementation would have already received environmental clearance.

Unfortunately, however, it is not accurate to say that all new segments of the proposed NHS are either in the process of implementation or on existing state plans. "Existing state plans" does not necessarily mean a plan adopted in conformance with the metropolitan and statewide planning process required by ISTEA. The controversial Route 710 extension through South Pasadena and Los Angeles in Southern California is a prime example of this. This proposed freeway would destroy more than 1000 homes in established, cohesive neighborhoods in the Los Angeles area, including scores of historic properties, at a cost of more than a billion dollars for 6.2 miles. Almost half of the homes slated for demolition are located in the moderate income Hispanic community of El Sereno. The National Trust has included these communities on its list of Eleven Most Endangered Historic Places for five years.

Has the Route 710 extension received federal clearance under Section 4(f)? No. This project does not meet the standard of Section 4(f) because feasible and prudent alternatives do exist, including most notably a Multi-Modal Low Build alternative proposed by the City of South Pasadena, which would be just a fraction of the cost of the freeway. The LA Times has encouraged Caltrans to pursue the Multi-Modal Low Build alternative. Congressman Carlos Moorhead has also advocated the Low Build alternative, which is more sensitive to the threatened communities in his district. In fact, the federal Advisory Council on Historic Preservation has objected so strongly to this project and for so many years that it has taken the rare step of referring the controversy to the Council on Environmental Quality for review. That referral is still pending and has not yet been resolved. Additional information requested by CEQ has not yet been submitted by FHWA. Meanwhile, a California state court has issued a permanent injunction banning construction of the Route 710 under state law, which protects home rule jurisdictions from freeway destruction without their consent.

Does this project belong on the National Highway System? Absolutely not. Inclusion in the NHS would reflect an implicit determination that this freeway is a priority component of the national transportation system. How can such a determination be made when there is widespread disagreement on whether the freeway is needed in the first place, and when the FHWA has not determined whether the project would even comply with federal environmental laws? NHS designation for the Route 710 would have the effect of circumventing these existing legal requirements by giving the controversial freeway proposal a presumption of approval.

Of course, the NHS is not intended to be permanently fixed in stone. If new routes are approved after adoption of the NHS, both under the ISTEA planning process and environmental laws such as Section 4(f), then we believe the Secretary should have the

authority to add those routes to the NHS if appropriate. But listing them on the NHS prior to approval puts the cart before the horse, and undermines both the comprehensive transportation planning process, which Congress intended to be the keystone of ISTEA, and the mandate of Section 4(f).

2. Preservation and Repair of Existing Infrastructure Should Receive Funding Priority for the NHS, Not New Capacity.

One of the principal themes of ISTEA and of Secretary Pena's transportation policy is that the preservation of existing infrastructure should take priority over new construction. The National Highway System was never intended to be a new construction program, but rather, a network of existing transportation links that represent the top priorities for scarce federal resources.

The current condition of our most heavily traveled roadways is a disgrace. According to the Department of Transportation, 24 percent of the Interstate system itself has pavement in poor to mediocre condition; 29 percent of the bridges in the proposed NHS are structurally deficient or functionally obsolete. In Southern California, infrastructure failure has become a true crisis as a result of the Northridge earthquake in January. In California, earthquake repair and seismic retrofit should take absolute precedence over new capacity.

The Surface Transportation Policy Project has taken the position that the NHS legislation should prohibit adding new capacity on the NHS, such as widening two-lane roads to four lanes, until a state has demonstrated that all existing components of the NHS are in good repair. We strongly endorse this approach, and urge the Subcommittee to include such a provision in the NHS legislation. In the alternative, the legislation could require that a substantial percentage of each state's NHS funding allocation (say, 75 percent) be restricted to the "Four R's" -- resurfacing, restoration, rehabilitation, and reconstruction -- excluding new capacity. Either one of these approaches would reinforce the fundamental philosophy of ISTEA that our existing infrastructure should be our highest priority.

3. Flexible Design Standards are Essential.

One important function of the National Highway System will be to facilitate travel and tourism. This industry is one of the fastest growing sectors of our national economy, and generates more jobs than any other field except health services. The National Trust has worked with a number of states that are promoting heritage tourism programs as a way to bring economic revitalization to less developed regions, while preserving the character and quality of life that draws visitors in the first place.

What we have learned is that transportation best enhances tourism if it is not exclusively destination oriented. Unfortunately, all too often, we end up destroying our destinations because we have become too obsessed with trying to get there more quickly. We should not overlook the importance of enjoying the ride.

We strongly oppose the notion of a single uniform design standard for the NHS. Secretary Pena has repeatedly recognized the importance of flexible standards, depending on the nature of the facility. As currently proposed, however, the NHS will not encourage sensitive design standards.

Although Section 1016(e) of ISTEA authorizes design flexibility in historic and scenic areas, experience has shown that this authority is rarely ever exercised. The ISTEA provision is certainly a step in the right direction, but stronger statutory language is needed. The current approach is based on a primary set of standards, subject to discretionary exceptions for projects that impact historic or scenic resources. This approach is simply not working, because there is no incentive or mandate for flexibility, only the bare authority to be flexible. What is needed in our view is a requirement that different standards must be used when sensitive resources are at stake.

The AASHTO standards impose severe problems for historic areas, and scenic byways. The standards themselves are often outmoded, based on old assumptions about average car size and weight that no longer correspond to current driving patterns, which reflect the use of smaller cars. The result is a tendency to over-design roads and highways, with unnecessarily wide clear zones and rights-of-way, which needlessly damage the character of local communities and scenic areas. This problem is exacerbated by the fact that the standards are often rigidly and mindlessly applied by state transportation departments.

Much of the proposed NHS is comprised of two-lane roads. The reality is that NHS designation will inevitably create tremendous pressure for widening these roads to four lanes. Many states already have plans for major capacity expansion. The potential for conflict in historic communities and scenic areas is enormous. In order to protect against this result, the NHS legislation should mandate alternative standards for sensitive areas.

Many local communities already find themselves caught in a Catch-22 under current federal policy, which holds repair funds hostage so that even resurfacing is made contingent on huge upgrades or expansions based on a 20- or 30-year future projection of capacity. The dilemma for these communities is either to forego repair funds altogether, or to acquiesce in a massive widening project that usually results in the elimination of the very features that give the community its special character and economic vitality: large trees lining the streets, on-street parking for downtown small businesses, historic store-fronts along main street, and pedestrian accessibility. In Main Street towns, where communities promote their historic character in order to generate economic revitalization for downtown businesses, this kind of insensitive transportation policy can be economically disastrous.

Another potential problem area is the inclusion of historic parkways. The Merritt Parkway in Connecticut and our own George Washington Parkway are included in the proposed NHS. These historic parkways should not be forced to fit within the straitjacket of the AASHTO standards.

One of ISTEA's most innovative components was its creation of a National Scenic Byways Program. The National Trust welcomed the new scenic byways program, and indeed, we served on the Scenic Byways Advisory Committee appointed by the Secretary of Transportation under ISTEA § 1047(a), to develop national guidelines for the program. The Scenic Byways program is encouraging communities and states to preserve and to utilize their historic, scenic, and natural resources more effectively. We have been pleased by the tremendous enthusiasm the program has generated and by the dramatic increase in scenic byways conservation; today more states than ever before are developing or expanding their scenic byway programs in order to take advantage of the incentives in the federal program.

We understand, however, that an amendment may be offered to eliminate the ban on new billboard construction along federal-aid portions of state designated scenic byways. (ISTEA § 1046(c).) Mr. Chairman, a scenic byways program is meaningless unless we have a commitment to preserving the scenic character of those roads. The billboard construction ban along designated scenic byways is a limited and narrowly targeted approach to implementing this commitment. But it is essential. Removing the ban will weaken a flourishing program at a critical time in its development. The states are coming into compliance with this requirement; scenic byways managers have welcomed it; only the billboard industry has balked. The National Trust and STPP urge this committee to retain the billboard construction ban established in ISTEA for these special scenic roads.

4. Importance of Intermodalism.

The risk of the NHS is that it perpetuates the disproportionate emphasis on highways as a component of our national transportation policy. The lure of low-match federal highway funding can encourage state and local governments to trade off their heritage and quality of life for the false promise of highway mobility. That promise is too often illusory as new highways induce new development, more traffic and result in gridlock. We simply cannot pave our way out of our current transportation problems by building more freeways, especially in our urban areas.

The proposed Route 710 freeway in Southern California, again, is a classic example of this failed approach. Traffic data developed for the state show that, even if the 710 freeway is built as planned, 63.4 percent of the road network in the 40-square-mile corridor will operate at Level of Service F during peak periods, which means "forced or breakdown flow." The average rush hour freeway speed would be just 32.3 miles per hour. The price tag for this lack of mobility would be more than a billion dollars (not to mention the high price in terms of resources -- destruction of more than 1000 homes). Does it really make sense to continue to subsidize this kind of failed transportation policy and destruction of resources with federal tax dollars? The answer is clearly no.

Intermodalism must remain the touchstone for federal transportation policy. We applaud Secretary Pena's efforts to keep the Department focused on this ultimate goal. We need to give as much attention to low-cost, low-tech transportation solutions as we are giving

to expensive, high-tech solutions such as the IVHS (Intelligent Vehicle Highway Systems) and asphalt technology. Pedestrian transportation, for example, is often trivialized by engineers and not seen as a serious transportation mode. Yet it is an important component of an intermodal system, as recognized by the ISTEA legislation. Pedestrian trips exceed transit trips in both the United States and Europe. The key to making walking a more effective strategy for transportation demand reduction is creating a more hospitable environment for pedestrians through better land use and urban design. Americans will walk to their destinations (homes, offices, and stores) if it is safe and pleasant to do so. The economic, social, and environmental costs of not exploring these low-cost, low-tech transportation solutions are so high that we can no longer afford to ignore them.

Conclusion

In summary, the National Highway System has enormous potential to adversely affect the efforts of local communities to protect their quality of life and their historic and scenic resources. We urge the Subcommittee to give serious considerations to the safeguards we have proposed. In our view, these safeguards will help to ensure that the NHS functions as a component of an intermodal National Transportation System, in a manner consistent with the fundamental policies of ISTEA and the Department of Transportation Act.

COSTS OF SAFETY BELT AND MOTORCYCLE HELMET NONUSE

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Oral Testimony of Ted Miller, House Subcommittee on Surface Transportation, 3/3/94

My testimony covers the costs of safety belt and motorcycle helmet nonuse. It also describes the medical and insurance cost savings of selected injury prevention efforts that could be undertaken with highway safety grant program funds.

The issue at hand is the merit of requiring safety belt and motorcycle helmet use. Society generally restricts individual behavior that imposes unacceptable costs on others. Drunk driving and water pollution laws are examples.

In exchange for permission to drive, people agree to follow the rules of the road set by the state. These rules govern vehicle maintenance and other driver behavior. To say the state is not entitled to tell people to buckle up, extended logically, also means it is not entitled to tell people to stop at a red light or to forbid driving without headlights at night.

When people "rationally" choose not to wear safety belts or motorcycle helmets, they have decided their personal benefits of nonuse outweigh their personal costs. Government needs to intervene if individual free choice imposes unacceptably high costs on other members of society.

My testimony defines injury costs very narrowly. It discusses **public costs** -- what economists call external costs. These costs exclude injury costs paid directly by people who choose not to wear a safety device. They include only costs to the rest of society, the bill you and I pay when someone else fails to buckle up or wear a helmet.

Let's start with safety belt nonuse. By 1997, all new passenger vehicles will have airbags. In an airbag equipped fleet, the public could save $12 billion annually by getting everyone to wear a safety belt. During the next 15 years, while vehicles without airbags remain on the streets, the annual savings will be much larger. Even with airbags, universal belt use would reduce medical spending more than $4 billion annually. The medical cost savings alone could pay the entire medical bill for child well-care.

Picture two identical airbag-equipped cars purchased by typical drivers. In one car, no one will ever wear a safety belt. In the other car, everyone always will travel belted. Each year, public injury costs will average $300 in the unbelted car. In the belted car, public costs are just $165. The public pays $135 in taxes and insurance for each car that drives without buckling up. How long must we pay those bills?

Some of the tax and insurance costs are paid by unbelted drivers.

Despite this, every adult who uses their safety belt religiously currently is paying $110 a year to cover the nonusers. When everyone has airbags, our annual bill will drop to $65. That bill's too high.

Responsible citizens should not be forced to pay the bill for people who refuse to buckle up. Travelling unbelted ought to be an illegal act enforceable as a primary offense nationwide.

Motorcycles. Motorcycles are dangerous vehicles. The public injury cost per mile ridden on a motorcycle in 1991 was ten times the public cost of riding unbelted in a car.

Annually motorcycle helmet nonuse costs the public $375 million. That's $180 per unhelmeted motorcyclist. There are better ways to spend that money. We could buy the 2 million unhelmeted motorcyclists a helmet, buy every new baby a child seat, buy every new bicycle rider a bicycle helmet, and have money left over. From this economist's viewpoint, the external costs justify interfering with free choice. Unhelmeted cycling should be outlawed.

When helmet laws took effect in California and Washington, public costs per motorcycle fell almost 30 percent. Helmet laws are saving California citizens $210 million annually and Washington citizens $35 million.

ISTEA Section 153 reprograms funds to highway safety if states lack safety belt and motorcycle helmet laws. Many proven safety interventions could be implemented with these funds. For example, each dollar spent on child seats or bicycle helmets for low income children saves about $2 in medical payments and $1 in auto insurance liability payments. Each dollar spent enforcing laws against serving intoxicated bar and restaurant patrons saves $10 in medical spending. Sobriety checkpoints and administrative revocation of drunk drivers' licenses both offer insurance savings exceeding their costs. The reprogrammed funds will not fully offset the costs of not passing and enforcing safety belt and motorcycle helmet use laws. Still, they can make a dent. Thank you.

Written Testimony of Ted Miller before House Subcommittee on Surface Transportation, 3/3/94

I am an internationally recognized safety economist. I developed the highway crash costs used by the U.S. Department of Transportation, most state transportation departments, and transportation departments in Canada and New Zealand. Presently, I direct the Children's Safety Network Economics and Insurance Resource Center and the Safety and Health Policy Program at the National Public Services Research Institute (NPSRI). NPSRI and its parent organization, the Pacific Institute for Research and Evaluation, are nonprofit organizations that specialize in research and policy analysis on substance abuse, injury, and violence. The Children's Safety Network is a group of six resource centers funded by the Maternal and Child Health Bureau in DHHS. Our center also is funded by the National Highway Traffic Safety Administration (NHTSA). The Network fosters development and inclusion of childhood injury and violence prevention strategies into organizations, programs, and services targeting maternal and child health or safety. Our Center, which includes the National SAFE KIDS Campaign, works to forge child safety partnerships with third party payers. It also informs the public and decisionmakers about safety economics.

My testimony represents solely my own views and estimates. It is not the official position of my funders or my employer.

My testimony is divided into four sections. They discuss:

- Costing methods
- The costs of safety belt nonuse
- The costs of motorcycle helmet nonuse
- The medical and insurance cost savings of selected injury prevention efforts that could be undertaken with highway safety grant program funds.

All dollar estimates in my testimony are stated in November 1992 dollars. The estimates were developed specifically for these hearings, with considerable help from Larry Blincoe at NHTSA. The safety belt estimates, in particular, are preliminary.

Costing Methods. The issue at hand is the merit of requiring safety belt and motorcycle helmet use. Society generally restricts individual behavior that imposes unacceptable costs on others. Drunk driving and water pollution laws are examples.

In exchange for permission to drive, people agree to follow the rules of the road set by the state. These rules govern vehicle maintenance and other driver behavior. To say the state is not entitled to tell people to buckle up, extended logically, also means it is not entitled to tell people to stop at a red light or to forbid driving without headlights at night.

When people "rationally" choose not to wear safety belts or motorcycle helmets, they have decided their personal benefits of nonuse outweigh their personal costs. Government needs to intervene if individual free choice imposes unacceptably high costs on other members of society. It often also intervenes if individuals make irrational choices because they underestimate the risks they face. For example, crack cocaine use is illegal.

Given our purpose, my testimony defines injury costs very narrowly. It primarily discusses **public costs**. Public costs -- what economists call external costs -- omit injury costs paid directly by people who choose not to wear a safety device and by their families. They include only costs to the rest of society, the bill you and I pay when someone else fails to

buckle up or wear a helmet. The external costs of highway crashes cover insurer medical payments and charity care, emergency services, insurance payments that partially reimburse wage losses, legal and claims processing costs, employer costs of replacing killed and injured employees, and travel delay for motorists trapped in crash backups.

Health insurance reform could make medical bills that people currently pay themselves into society's bills. Therefore, I costed total medical spending.

Injury costs to the victim family also have some relevance. Studies show that people perceive only about five-eighths of their risk of being killed on the highway (Lichtenstein et al., 1978). Young men especially underestimate their risks. Thus, risk perception reduces the rationality of decisions to use helmets and belts. Users will gain benefits 1.6 times as large as they anticipate. Three-eighths of the family's costs are **unforeseen nonuse costs**. The rest are **anticipated injury costs**.

Costs of Safety Belt Nonuse. Airbags are rapidly improving the safety of our auto fleet. The benefits of safety belts discussed here largely were computed for a fleet equipped with dual airbags. Table 1 also shows the larger benefits achievable by increasing safety belt use in older vehicles.

The public could save $12 billion annually by getting everyone to wear a safety belt in an airbag equipped fleet. During the next 15 years, while vehicles without airbags remain on the streets, the annual savings will be much larger. Even with airbags, universal belt use would reduce medical spending more than $4 billion annually. The medical cost savings alone could pay the entire medical bill for child well-care (Miller, Lestina, and Galbraith, 1994).

Picture two identical airbag-equipped cars purchased by typical drivers. In one car, no one will ever wear a safety belt. In the other car, everyone always will travel belted. Each year, as Table 2 reveals, public injury costs will average $300 in the unbelted car. In the belted car, public costs will average just $165. The public pays $135 in taxes and insurance for each family that drives without belts. How long must we pay those bills?

Some of the tax and insurance costs are paid by unbelted drivers. Nevertheless, every adult who uses their safety belt religiously currently is paying $110 a year ($20.7 billion in public costs/187 million adults) to cover the nonusers. When everyone has airbags, our bill will drop to $65 ($12.2 billion/187 million). That bill's too high. Responsible citizens should not be forced to pay the bill for people who refuse to buckle up. Travelling unbelted ought to be an illegal act enforceable as a primary offense nationwide.

Costs of Motorcycle Helmet Nonuse. Motorcycles are dangerous. The public injury cost per mile ridden on a motorcycle in 1991 was $.40. That's ten times the public cost of riding unbelted in a car and 25 times the public cost of riding belted.

Realistically, we are not going to ban these deadly vehicles. We can make them less risky. One way to do that is to mandate leg guards on new motorcycles. Another is to force riders to wear helmets. As Table 3 shows, helmet use reduces the costs of motorcycling to other citizens by $.10 a mile.

Annually motorcycle helmet nonuse costs the public $375 million. (See Table 4.) That's $180 per unhelmeted motorcyclist. There are better ways to spend that money. We could buy the 2 million unhelmeted cyclists a helmet, buy every new baby a child seat, buy every new bicycle rider a bicycle helmet, and have money left over. From an economist's

viewpoint, the external costs justify interfering with free choice. Unhelmeted cycling should be outlawed.

When helmet laws took effect in California and Washington, public costs per motorcycle fell almost 30 percent. In California, the costs to non-motorcycling taxpayers dropped from $1,150 per motorcycle in 1991 to $810 in 1992. In Washington (where the law became effective in mid-1990), costs per motorcycle dropped from $970 in 1989 to $700 per year in 1991 and 1992. Helmet laws are saving California citizens $210 million annually and Washington citizens $35 million.

Medical and Insurance Cost Savings from Personal Transportation Injury Prevention. ISTEA Section 153 reprograms funds to highway safety if states lack safety belt and motorcycle helmet laws. Many proven safety interventions could be implemented with these funds. For example, each dollar spent on child seats or bicycle helmets for low income children saves about $2 in medical payments and $1 in auto insurance liability payments (Miller, Demes, and Bovbjerg, 1993; Miller, 1993a). Each dollar spent enforcing laws against serving intoxicated bar and restaurant patrons saves $10 in medical spending (Levy and Miller, 1993). Sobriety checkpoints and administrative revocation of drunk drivers' licenses both offer insurance savings exceeding their costs. The reprogrammed funds will not fully offset the costs of not passing and enforcing safety belt and motorcycle helmet use laws. Still, they can make a dent.

Table 1. Annual Public Cost Savings and Injury Prevention With Universal Safety Belt Use (B = billions of 11/92 dollars)

Vehicle Fleet	Public Cost/Year	Medical Cost/Year	Deaths	Serious Injuries
1990 Belt Use	$52.7B	$15.8B	30,100	656,000
All Use Belts	32.0B	9.0B	20,300	457,000
Belt Use Savings	**20.7B**	**6.8B**	**9,800**	**199,000**
1990 Belt Use, All Have Airbags	42.2B	12.7B	23,200	477,000
All Use Belts & Airbags	30.0B	8.6B	18.700	418,000
Belt Use Savings	**12.2B**	**4.1B**	**4,500**	**59,000**

Note: 1990 belt use is estimated at 60%.

Table 2. Injury Costs per Passenger Vehicle by Restraint Use

Restraint Use	Public Cost/ Mile	Public Cost/ Year	Family's Unforeseen Nonuse Cost/Year	Family's Anticipated Injury Cost/Year
No Restraints	$.038	$410	$570	$950
Belts Only	.016	175	325	540
Belt Use Savings	**.022**	**235**	**245**	**410**
Airbags Only	.028	300	405	675
Belts & Airbags	.015	165	300	500
Belt Use Savings	**.013**	**135**	**105**	**175**

Note: Costs/mile were computed before rounding.

Table 3. Injury Costs per Motorcycle by Helmet Use

Restraint Use	Public Cost/ Mile	Public Cost/ Year	Unforeseen Nonuse Cost/Year	Cyclist's Anticipated Cost/Year
Helmeted	$.353	$870	$745	$885
Unhelmeted	.445	690	530	1,240
Helmet Use Savings	**.092**	**180**	**215**	**355**

Note: Costs/mile were computed before rounding.

Table 4. Annual Public Cost Savings and Injury Prevention With Universal Helmet Use (M = millions of 11/92 dollars)

Vehicle Fleet	Public Cost/Year	Medical Cost/Year	Deaths	Serious Injuries
All Helmeted	3,260M	925M	2,760	29,500
1991 Helmet Use	2,885M	860M	2,270	27,700
Helmet Use Savings	**375M**	**65M**	**490**	**1,800**

Appendix: Methods

Fatality counts came from NHTSA's Fatal Accident Reporting System (FARS). Injury counts by restraint use came from NHTSA's General Estimates System (GES) and Crashworthiness Data System (CDS).

Vehicle registrations and miles of travel came from Highway Statistics, 1992 (Federal Highway Administration). The percentage of motorcycle miles on public roads came from Motorcycle Industry Council (1992).

Costs were inflated to November 1992 dollars from the values in Miller (1993b), Blincoe and Faigin (1992), and Miller et al. (1991). Property damage costs were excluded. Miller et al. (1991) provided data on who pays the injury costs with one exception; the medical literature (e.g., Rivara et al., 1988; Max, 1993) suggested that 10 percent rather than 20 percent of nonfatal medical costs of motorcycle-related head injury were self-paid. Lifetime productivity costs were updated using the 1991 household structure, life table, and age-earnings profile. Medical spending was inflated using medical costs per capita rather than the Consumer Price Index - Medical Care used by Miller et al. (1991). The switch in inflators better accounts for changes in medical technology and procedures.

The reduction in deaths and injuries attributable to belt and airbag use was computed from data by vehicle type (car versus light truck/van) on percentage reductions by seating position (front versus rear). The hospital-based literature suggested belt use also reduced medical spending per emergency department/hospital attended injury by a factor of 2-4 (see e.g., Nelson et al., 1993). The analysis uses a factor of 3. To estimate the parallel impact of injury severity reduction on productivity losses, average productivity loss by MAIS and body region was regressed on medical expense (using data from Miller et al., 1991). The regression covered MAIS 2 to 5 nonfatal injuries only and forced a line through the origin. The regression suggested productivity loss would decline by 90 percent of the medical expense reduction.

I assumed: (1) fatalities prevented instead became injuries of average severity, while serious injuries averted became minor injuries, and (2) serious injuries prevented by safety belts resulted in no injury costs for front seat occupants in frontal crashes where an airbag also was present.

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COALITION FOR RECREATIONAL TRAILS

TESTIMONY

BEFORE THE

U.S. HOUSE OF REPRESENTATIVES COMMITTEE

ON

PUBLIC WORKS AND TRANSPORTATION

SUBCOMMITTEE ON SURFACE TRANSPORTATION

ON THE

NATIONAL HIGHWAY SYSTEM ACT

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MARCH 3, 1994

U.S. HOUSE OF REPRESENTATIVES
PUBLIC WORKS AND TRANSPORTATION COMMITTEE

Hearing of the Surface Transportation Subcommittee
on the
National Highway System Act
March 3, 1994

Testimony of Roy W. Muth, Chair
Coalition for Recreational Trails

Mr. Chairman and members of the Subcommittee, my name is Roy Muth and I serve as Chair of the Coalition for Recreational Trails (CRT). CRT's members are primarily national organizations, now numbering twenty-seven, which represent the interests of all recreational trails users -- both motorized and nonmotorized recreationists. A membership roster is attached to this statement (Enclosure 1).

The Coalition for Recreational Trails was formed in January 1992 for the sole purpose of ensuring adequate funding for the National Recreational Trails Trust Fund. As you know, the National Recreational Trails Fund Act (NRTFA) -- Part B of Title I of the Intermodal Surface Transportation Efficiency Act of 1991 -- called for the establishment of a National Recreational Trails Trust Fund and authorized the transfer of revenues to this trust fund from the Highway Trust Fund in amounts which correspond to a portion of receipts from nonhighway recreational fuel taxes. The user-pay/user-benefit philosophy -- the basis for the Highway Trust Fund itself -- is also the basis for this trails fund program administered by the Secretary of Transportation.

We appreciate the opportunity to testify today to explain why we believe that the National Highway System legislation should include amendments to the National Recreational Trails Fund Act. To lay the groundwork for our primary recommendation, I would like to identify two specific provisions of the Act which relate to funding. First, as I have noted, the Act calls for the establishment of a trust fund. Second, it specifies that amounts in the fund shall be available as provided in appropriations acts.

A quick look at the history of funding for the National Recreational Trails Funding Program reveals the problem. Although the original legislation called for funding the trails trust fund program at an annual level of $30 million, since passage of the Act, the following amounts have been appropriated:

Fiscal Year 1992	$0
Fiscal Year 1993	$7.5 million
Fiscal Year 1994	$0

(The allocation of the Fiscal Year 1993 appropriation among the states is shown in Enclosure 2.)

The problems related to funding have taken a number of other forms. As examples:

- To the best of my knowledge, the National Recreational Trails Trust Fund has never been established in the Treasury.

- Funds allocated from the Fiscal Year 1993 appropriation, and not obligated by the states by October 1, 1993, were lost -- without any notice to the affected states that this would happen. The fifteen states that lost part or all of their funding are listed in Enclosure 3.

- The Administration's Fiscal Year 1995 Budget does not include funding for the National Recreational Trails Funding Program.

The net result of these developments has been confusion and uncertainty in the states. Promising improvements to state trails programs have been put on indefinite hold. Legislation that must be passed by the states to allow them to qualify for funding is being delayed. And in some cases, the formation of state recreational trails advisory boards -- a very important step in the development of state trails programs that truly meet the needs of all trail users -- is being deferred until the funding problems have been resolved.

At a December 2, 1993 meeting with Jane Garvey, Deputy Administrator of the Federal Highway Administration, members of the National Recreational Trails Advisory Committee offered their views on the program after its first year of funding. The following extracts from their comments are eloquent testimony to the worth of this program:

- Stuart Macdonald, Colorado's State Trails Coordinator and Chairman of the Advisory Committee, stated, "The Act is promoting volunteerism, education programs, donations from the business community, contributions of local governments, and all kinds of ways to leverage the funds...It has helped the states be genuinely effective in helping people develop and maintain trails."

- Henry Agonia, Principal Planner for the California Off-Highway Vehicle Foundation, said, "NRTFA takes transportation dollars, and uses those dollars as a carrot to bring a variety of recreational trails interests together for one common thing...to expand the recreational trail opportunity across the nation and expand the transportation system, too."

- Jeffrey Butson, Chairman of the Wisconsin State Trails Council, who also represents recreationists with disabilities on the Committee, said, "This Act has generated new enthusiasm in our state for its trails system...[and] it has allowed the disabled community a voice in a national planning process."

Additional comments from members of the Advisory Committee are contained in Enclosure 4.

These comments on the unquestioned value of the trails funding program are echoed by state officials. Let me offer several examples:

- Larry Freidig, Wisconsin Department of Natural Resources, states, "From the addition of challenging trail mileage to one of Wisconsin's finer cross-country ski facilities and site of Wisconsin's Winter Badger Games Nordic events to an equestrian non-profit organization building trail shelters on state property, the National Recreational Trails Fund Act has provided a valuable stimulus to state and local user organizations to improve a wide variety of trail opportunities throughout the seasons for Wisconsin residents and visitors to the state."

- Ralph Romeo, Pennsylvania Department of Environmental Resources, says, "When the NRTFA was passed by Congress, we felt that it promised us the opportunity to address the issues that were identified in the State Trails Plan, which was an element of our 1980 Statewide Comprehensive Outdoor Recreation Plan, the official Recreation Policy Document for the state. Most importantly, we saw it as the focal point to restructure the State Trails Advisory Board and to give it a major role in recommending how to address the diversified trail needs.

  "The number one recreation issue that was identified in the past two SCORP policy documents was adequate, stable and predictable financial support for the planning, acquisition, development, operation and maintenance of natural, cultural, historic and recreation resources, facilities and programs. The NRTFA is a source of 'dedicated funding' and if appropriations are approved for the full $30 million level authorized each year, the state will receive approximately $670,000, thus enabling public resource agencies and trail organizations to begin to adequately address the highest priority issues of all trail users."

- Richard Hartman, West Virginia Division of Tourism and Parks, notes, "Trail tourism is becoming a major tourist draw for West Virginia. On the North Bend Rail Trail opened in 1992 connecting Parkersburg and Clarksburg, there have developed 22 new businesses to serve trail

users. These include mountain bike rentals, restaurants, bed and breakfasts inns and campgrounds.

"Rail trails are a major component of our trails program with six new local projects in process this year throughout the state.

"Mountain biking is growing into a tourist attraction equaling whitewater rafting and trail construction and improvements are needed to meet this demand.

"As for the National Recreational Trails Act, West Virginia only received $114,000 last year. However, West Virginia is using $60,000 of these dollars to convert two miles of the Greenbrier River Rail Trail to a paved handicap-accessible trail from the town of Marlinton to the city park along the trail. This project is important, not only to the town of Marlinton, which is a major trailhead facility for the Greenbrier River Trail, but to encourage other trail managers to realize the need for recreation access for the physically challenged."

CRT is informed that the solution to the program's funding problem is to amend the National Recreational Trails Fund Act to provide the same kind of spending authority given to other programs funded by the Federal Highway Trust Fund -- contract spending authority. We are also aware that there is more than one way that change could be made. Regardless of the precise legislative approach used to obtain contract authority, it is absolutely essential if this important program is to continue. We ask your help by including this provision in the National Highway System legislation, or any other bill which would achieve that end.

There are several other amendments to the Act that CRT believes will improve this program. They are as follows:

- Adopt the changes contained in the ISTEA technical corrections bill passed by the House of Representatives in 1993 (H.R. 3276) (See Enclosure 5.)

- Extend the time for a state to come into compliance from three years to four years. (See Enclosure 6, a draft memorandum on this subject prepared by the Federal Highway Administration.)

- Change the requirement for state funds. (Also see Enclosure 6.)

- Add to the National Recreational Trails Advisory Committee a representative of people with disabilities who would have the same voting rights accorded representatives of water trail and hunting and fishing organizations.

- Require that all NRTFA projects be identified by using signs which designate the source of funding.

- Amend the definition for "thoroughfare or track" to include high-clearance primitive roads but to exclude roads generally accessible by passenger vehicles, unless those roads are specifically designated for trail use by the managing agency.

- Add that reimbursable expenses incurred by members of the National Recreational Trails Advisory Committee will include telephone calls and postage.

Mr. Chairman, the investment in trails -- a vital national resource -- is badly needed. We urge your leadership and that of the Subcommittee in making the changes we have recommended so that adequate funds will be allocated for the National Recreational Trails Funding Program.

Thank you.

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ATTACHMENT A-2

NATIONAL RECREATIONAL TRAILS FUNDING PROGRAM
STATE-BY-STATE ALLOCATIONS
Formula established by the Symms National Recreational Trails Act of 1991

STATE	Estimated Off-Road Recreational Use of Gasoline (Gallons)	Percent of National Total	Allocation Based on Share of Fuel Use	Equal Allocation	TOTAL ALLOCATION
Alabama	11,350,786	2.3412	$85,163	$69,952	$155,115
Alaska	5,348,134	1.1031	$40,126	$69,952	$110,078
Arizona	4,089,203	0.8434	$30,680	$69,952	$100,632
Arkansas	9,082,320	1.8733	$68,143	$69,952	$138,095
California	29,718,458	6.1298	$222,971	$69,952	$292,923
Colorado	6,940,038	1.4315	$52,070	$69,952	$122,022
Connecticut	3,580,931	0.7386	$26,867	$69,952	$96,819
Delware	888,166	0.1832	$6,664	$69,952	$76,616
Dist. of Columbia	0	0.0000	$0	$69,952	$69,952
Florida	17,236,272	3.5552	$129,320	$69,952	$199,272
Georgia	14,789,532	3.0505	$110,963	$69,952	$180,915
Hawaii	0	0.0000	$0	$69,952	$69,952
Idaho	4,072,123	0.8399	$30,552	$69,952	$100,504
Illinois	11,383,259	2.3479	$85,406	$69,952	$155,358
Indiana	7,587,812	1.5651	$56,930	$69,952	$126,882
Iowa	7,806,380	1.6102	$58,570	$69,952	$128,522
Kansas	3,699,076	0.7630	$27,753	$69,952	$97,705
Kentucky	7,740,102	1.5965	$58,072	$69,952	$128,024
Louisiana	8,067,075	1.6639	$60,526	$69,952	$130,478
Maine	11,260,422	2.3226	$84,485	$69,952	$154,437
Maryland	4,822,644	0.9947	$36,183	$69,952	$106,135
Massachusetts	7,103,709	1.4652	$53,298	$69,952	$123,250
Michigan	43,798,827	9.0340	$328,612	$69,952	$398,564
Minnesota	33,287,068	6.8659	$249,745	$69,952	$319,697
Mississippi	7,145,390	1.4738	$53,610	$69,952	$123,562
Missouri	9,948,786	2.0521	$74,644	$69,952	$144,596
Montana	7,874,972	1.6243	$59,084	$69,952	$129,036
Nebraska	3,770,987	0.7778	$28,293	$69,952	$98,245
Nevada	1,768,976	0.3649	$13,272	$69,952	$83,224
New Hampshire	6,917,620	1.4268	$51,901	$69,952	$121,853
New Jersey	7,165,856	1.4780	$53,764	$69,952	$123,716
New Mexico	2,036,685	0.4201	$15,281	$69,952	$85,233
New York	20,816,829	4.2937	$156,184	$69,952	$226,136
North Carolina	13,757,875	2.8377	$103,222	$69,952	$173,174
North Dakota	2,652,238	0.5471	$19,899	$69,952	$89,851
Ohio	11,504,543	2.3730	$86,316	$69,952	$156,268
Oklahoma	5,596,283	1.1543	$41,988	$69,952	$111,940
Oregon	5,215,167	1.0757	$39,128	$69,952	$109,080
Pennsylvania	21,576,586	4.4504	$161,885	$69,952	$231,837
Puerto Rico	0	0.0000	$0	$69,952	$69,952
Rhode Island	852,908	0.1759	$6,399	$69,952	$76,351
South Carolina	5,081,815	1.0482	$38,128	$69,952	$108,080
South Dakota	2,492,848	0.5142	$18,703	$69,952	$88,655
Tennessee	13,492,827	2.7831	$101,234	$69,952	$171,186
Texas	21,104,354	4.3530	$158,342	$69,952	$228,294
Utah	5,118,143	1.0557	$38,400	$69,952	$108,352
Vermont	6,285,186	1.2966	$47,156	$69,952	$117,108
Virginia	10,492,383	2.1642	$78,722	$69,952	$148,674
Washington	7,356,837	1.5174	$55,197	$69,952	$125,149
West Virginia	5,965,096	1.2304	$44,755	$69,952	$114,707
Wisconsin	22,331,824	4.6062	$167,551	$69,952	$237,503
Wyoming	2,844,132	0.5866	$21,339	$69,952	$91,291
USA TOTAL	484,819,525	100.0000	$3,637,496	$3,637,504	$7,275,000

ENCLOSURE 2

STATES LOSING FISCAL YEAR 1993 NRTFA FUNDING

Entire Allocation Lost

Arizona
District of Columbia
Iowa
Minnesota
Missouri
Ohio
Oklahoma
Oregon
Puerto Rico
South Carolina

Partial Allocation Lost

Arkansas
Indiana
Nevada
Pennsylvania
West Virginia

ENCLOSURE 3

National Recreational Trails Advisory Committee
Member Statements presented to
Deputy Federal Highway Administrator Jane Garvey
Meeting of 2-3 December 1993

[Note: Where members refer to the *National Recreational Trails Fund Act*, it will be abbreviated as the *Act* or *NRTFA*. The term *National Recreational Trails Funding Program* will be called the *Trails Program*. The term *National Recreational Trails Advisory Committee* will be abbreviated as the *Committee*.]

Introduction

Kevin Heanue, Director of the FHWA Office of Environment and Planning, introduced Jane Garvey, Deputy Administrator of the FHWA, to the Committee members. Mr. Heanue said, *'We have tried very hard as staff to convey to you our support of the Recreational Trails Program, at the same time to challenge you to challenge us in terms of ways that we might together put the program on a more stable footing.'* Mr. Heanue noted that Ms. Garvey changed her schedule to find time to meet with the Committee. Ms. Garvey said that she had just been speaking to the "Road Gang", so coming to this meeting was slightly different, but reflective of the ISTEA and the fact that transportation is more than just highways. She noted her interest in trails and said she was eager to meet with the Committee and to hear what the members had to say.

Stuart Macdonald thanked Ms. Garvey for joining the Committee meeting. He said he hoped this meeting would help her to see a different area of what the ISTEA has brought into the transportation world. He then introduced the Committee members as each gave their statements.

Donald Carlson, Snowmobiling, White Bear Lake, MN

Ms. Garvey, I am Donald Carlson, and I hail from the North Star State of Minnesota. I serve as Snowmobiling's representative on the National Recreational Trails Advisory Committee, and National representative for the Minnesota United Snowmobile Association. In those two positions, I thus represent 1,200,000 snowmobile owners and nearly six million snowmobilers.

While serving in these two positions, I have found no other Federal legislation similar to the NRTFA, where the process of administration of the Act and the funding source is derived from the Federal Gas Tax Fund, i.e., funds for the planning, developing, and maintaining of motorized and non-motorized recreation trails, segments thereof, and related facilities.

The Act designates the Department of Transportation as the lead agency. It establishes an Advisory Committee to make recommendations to the FHWA. This committee is composed of representatives from each major trail user group, both motorized and non-motorized, and representatives for hunting and fishing, water trails, and disabilities. The passage and administration of this Act is very important to the snowmobilers from all across the snowbelt States, as it clearly defines the overall process of identifying and developing trails that serve the community of trail users, that is, the entire gamut of trail users, in a very efficient and effective manner.

National Recreational Trails Advisory Committee
Member Statements

Through the process of the Advisory Committee at the National level, and the State Trail Advisory Board at the local level, it has brought about an air of coöperation never before enjoyed by both the motorized and non-motorized communities.

For snowmobilers that means many things, but it boils down to better trails, multi-use trails, more and better facilities, less conflict, and better facilities at trail heads and rest stops. It gives other members of a family the opportunity to partake in other winter activities while at the site. Also, it allows the snowmobilers to use the trail for hiking, bicycling, and horseback riding when the area turns from snow-white to grass-green.

Since the NRTFA was not funded for FY 1994, many of these projects already identified but without funding will cease, and along with it will disappear the coöperation, unity, and relationships the Act initiated. Some users may find new funding sources, however, it is doubtful the ability to work in coöperation with other trail users would be so effective or coördinated. Even though the FY 1993 appropriation was small, it has provided the means for opening the door of trail partnerships and coöperation to new levels of trails operations and responsibilities.

To go into FY 1994 without any funds to continue and build upon the success of FY 1993 reduces the efforts today and inhibits the initiative of snowmobilers and other user groups to work together. Simply, it means every group will be looking for a funding source to fill their needs or back to "square one". As snowmobiling's representative, I urge the FHWA to seek contract authority for this Act, to seek a supplementary appropriation of at least $15,000,000 for FY 1994, and to work towards the funding to be continued out of the Federal Gas Tax Fund. Snowmobilers have paid taxes on motor fuel used in snowmobiles for over three decades without receiving any benefit. Snowmobilers support other trail users sharing this fund, as it makes better facilities and provides them with other trail opportunities when the winter gives way to summer.

Bruce Kerfoot, Water Trail Users, Grand Marais, MN

I am Bruce Kerfoot, a country guy, born, raised, and living in the wilderness in northern Minnesota. I represent the people that recreate on the thousands of miles of water trails throughout the country: from the Batten Kill in your backyard, to the Sacramento River in California, to the Tatshenshini River of Alaska; from the famed Boundary Waters Wilderness of northern Minnesota to the Suwannee River of Florida.

My comments today are focused on the ISTEA program and the new partnerships that have been created. Trail maintenance projects initiated under this legislation have brought together various user groups. For example, the American Canoeing Association and the National Association of Canoe Liveries and Outfitters, and various ski groups and snowmobiling groups, etc. For a change, positive things are happening instead of the normal or growing number of appeals or litigation by special interest groups. This program has also had a huge success in leveraging a small amount of Federal funds with State and local funds.

Your agency has used the ISTEA recreational trails funds for long overdue trail projects with a wide variety of private, State, and governmental groups working together. You are the first agency that has been able to get these groups working together.

But now that we have gotten a start, we really need to keep the ball rolling. The system is working and the user groups are geared up. We can not afford to let this fall apart. Somewhere or somehow there must be contingency funds or upcoming supplemental funding that could be used. The Act was recommended to be funded by the Administration and only lost its funds by a technicality. We ask for your support in finding some "bridging funding" until the next appropriations cycle when an effort can be made to give you "contract authority" for this continuing program.

This program is like a small shining star. With a little help, it will grow much bigger until it shines across the entire country encompassing millions of people that are seeking an opportunity to use our green spaces safely and conveniently with their families and friends. I respectfully ask for your help in keeping this program alive and growing. Thank you.

Bernice Paige, Hiking, Sun Valley, ID

I'm really very pleased that you took the time to come, too. I'm Bernice Paige, and I represent the hiking interest. I have lived in Idaho for over 40 years, for the last 3½ I have lived in the resort city of Sun Valley. Trails are very important to our area, and are important to other resort areas, too. Personally, I'm a backpacker; I spent over two weeks this summer backpacking in the wilderness. But, I also use the urban trails; our Wood River Trail is an outstanding urban trail. I bike and I hike on that trail.

But I recognize as a hiker that I'm not just one entity; I really represent everyone from joggers to mall-walkers; it's a wide area. And in addition, a lot of these people are also cross-country skiers in the winter when we can't walk. So, there's a wide range of people that are in the "hiking" class.

This wide variety of people are not usually transportation-oriented, they're recreation-oriented. For that reason, the NRTFA is a new source, and a very valuable source. It has created a lot of enthusiasm and hope in what other trends have set for this new way of getting trails. So I think that it's even getting the non-motorized people to look more at how they can get additional funds from their own resources, which has not been done to a great deal. So we need to keep up the momentum, as it was mentioned, because the NRTFA has worked so successfully. It has created volunteer efforts and new grass roots support; new people who hadn't even realized they were hikers or trail users. I think this is what it has brought forth. As was mentioned, it is particularly important that it has promoted coöperation and consideration between some of the hikers and the foot passengers and the others. This is probably one of the groups for whom it is really a new experience for them to coöperate and to work together. So I, too, am asking for any aid you can give in finding some supplementary funds this year, or in helping us to determine how we can get the contract authority to make this more permanent.

I think that I will remind you that the President's Commission on Americans Outdoors back in 1987 pointed out that walking was one of the most commonly used forms of recreation, and they also pointed out that trails near home are important. We have a lot of Federal lands in Idaho, but we need those connecting links. You don't want to have to get in the car and drive there first. So, it's very important, these trails near the home. The bottom line is that this NRTFA is helping a lot of public that didn't even know that they were trail users, and I think that a lot of walkers and hikers should be very supportive of it.

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Roger Pattison, Off-Road Motorcycling, Clovis, NM

Good afternoon, Ms. Garvey, and thank you for taking the time to be here. My name is Roger Pattison. I hail from the State of New Mexico. I am proud and privileged to represent off-road motorcyclists on this panel. I also represent southwestern-style trail users.

Statistically speaking, some 2,000,000 off-highway motorcycles and ATVs traveled close to 930 million miles on trails in 1992 in the U.S. As you may know, the money paid into the Federal fuel tax that has been collected over the years as a result of OHV activity is the intended source of funding for this Program. Motorized trail users are very pleased to have the opportunity to contribute in the cost of the establishment of and the ongoing improvement of the Nation's recreational trails.

This program has fostered an unprecedented amount of coöperation among all trail users, and has provided an opportunity and the perfect reason to overcome some differences that may have existed. In addition, some innovative new concepts have been developed specifically to make these trail dollars go as far as possible. One of these projects is called *Project Opportunity* [begun in Georgia] where the need to put disadvantaged youth to work has been coupled with the opportunity to build trails. In many States, trails have been established and built in the last year where previously none existed. In New Mexico, we received $85,000 from this Act. Over $400,000 was applied for in valid projects. Much of the difference was made up for in volunteer labor and contributions from private sources. One project in particular converted cow trails to recreational trails that are used coöperatively by 6 different user groups, all at a cost of less than $500 per mile.

For reasons not entirely clear to this committee, the Program was funded in FY 1993 from the DOT's administrative budget rather than out of the National Recreational Trails Trust Fund as required by the Act. When Congress set out to fund the Program in the same manner this year, it failed because the Act requires funding from the Trust Fund. Apparently, the Treasury Department has not yet established this trust fund. We wonder what can be done to get this established?

We thank you, Ms. Garvey, and the FHWA, for sponsoring this Committee meeting in spite of the lack of funding this year. In addition, we ask for your personal support in our need to continue in our deliberations by continuing to meet on a regular basis, with or without program funding. I ask you specifically to support and champion the full $30 million funding of this Act for FY 1995.

William Flournoy, Bicycling, Raleigh, NC

Good afternoon. I'm Bill Flournoy, from North Carolina, and I represent bicycling interests on the Committee. Several challenges exist in representing bicycling, not the least of which is that the bicycle is both a recreational vehicle and a transportation vehicle, and it can be either of those on highway right-of-way or off highway right-of-way. So it's a complex situation. I also represent mountain bikes, which did not exist as a recreational trail user a decade ago, and now they are the fastest growing user type.

Beyond that, I have longstanding involvement with urban trails and greenways. These facilities accommodate diversified use, as is envisioned by the Trails Act. They also facilitate intermodal transportation, which is the larger part of the ISTEA. The benefits of these facilities, as I'm sure you're aware, is that they are close to the users, and are available on a daily basis, which means they can receive a great deal more use.

The consequences of representing bicycling creates a particular interest for me in policy. How the FHWA relates to trails through funding, planning, and design, will determine whether the promise of the Act will be fulfilled. The interrelationship of linear systems -- trails, highways, and mass transit -- is a new relationship, and all of the existing rules, regulations, and policies for dealing with this need to be reviewed in light of this new integration between the various linear systems.

I note that the Committee is charged, in the Act, to advise the Secretary of Transportation on policy issues. That is a responsibility that needs to continue whether or not there is funding for the Trails Program, because it goes to the heart of the ability to carry out the broader charge of the compatibility of all of these linear systems.

Loren Lutz, Hunting and Fishing, Pasadena, CA

Good afternoon Ms. Garvey. I'm Dr. Loren Lutz. I represent here the basic food gatherers: hunters and fishers. I am from Wyoming and California, both: two public lands States. (Public lands States, of course, are those with a predominant amount of public domain lands within the perimeters of the State.

I want to talk about children. One small and frequently overlooked aspect of the value of trails has to do with children. Coming from public lands States, I understand that private lands are then compacted, and you have to do your building within the confines of a smaller arena. That causes impaction - there have been some psychological studies of monkeys in cages. It causes all kinds of problems, and we have them all in Los Angeles, every one of them: you name it, and we have it. A lot of volunteer groups have been trying to solve that problem. Government has been trying to solve it. In some ways, it's a difficult situation.

I was one of the people that insisted that we have State parks in the center of Los Angeles, and it works. It's one way of doing that which is necessary, for the salvation of humanity. But, consequently, we have a lot of disadvantaged children within city limits.

I was born in a snowbank in Minnesota, along with Don over here, but I did emigrate - I had enough sense to get out of there. *[General laughter.]* But by golly, there are lots of groups trying to help the children to grow up to be decent adults. One good example is Outward Bound, started by a teacher in Pasadena. There are a lot of people involved in this. They take inner core children and take them out into the wilderness on trails and trail-heads, and let them experience something different than cement sidewalks, and the consequences of that kind of play opportunities. And I have noticed some dramatic changes in children's behavior just because of that. They've grown up into decent human beings with decent families and are productive members of society, just because some adult had some sense to do something.

Another good example of why we need trails is a program developed by some equestrians. They take handicapped children, both physically and mentally, and they'll strap them on a horse, and because of the affinity between the horse and the child, they improve in both attitude and physical learning capabilities. Some of them are completely cured by that process. It's an amazing relationship. We need help on those programs: trails. There are all kinds of people doing that kind of programming: inner city trails.

I've walked around the country quite a bit, and I notice some cities insist on trails within the perimeters of the city, others ignore it completely. Los Angeles ignores it, for instance, but there are groups that are trying to correct that. It is a correctable situation.

I ran a children's camp up in Wyoming for a number of years, and you take one of these core people, city people, kids -- introduce them to a shovel, some manure, and a horse, and a trail -- I want to tell you, there is a change in attitude. Some of these people are now professors in universities, some of them run agricultural enterprises; and it does change their attitude.

We need help with these volunteer efforts: we need trails. Government cannot and must not do everything for everybody, because it's impossible. But it can become a synergistic partner in this kind of relationship, and it can be the catalyst to promote these kinds of volunteer efforts even more. And with your assistance, I hope this program will go forward. Thank you.

Bobbi Lipka, Equestrian, Churchville, NY

Hello! I'm Bobbi Lipka, from Churchville, NY. I am both a recreational and professional horsewoman, and own my own small business where we train horses for the Olympic sport of Dressage. While I am the equestrian representative to this committee, I am also a 4 x 4 owner, a camper, bicyclist, fisherwoman, and a canoeist. As do the other members, I wholeheartedly support the needs of all user groups.

Like my colleagues on this Committee, I represent a number of different constituencies, which reflect the diversity embodied in the NRTFA. I am President of the New York State Horse Council, with the American Horse Council, Chair of the Cornell University Veterinary College Equine Advisory Committee, a member of the National Land Use Collaboration under the Department of Agriculture, and a member of the New York and American Farm Bureaus. These are new constituencies to the FHWA. All are vitally interested in trails, and the success of the NRTFA.

The NRTFA provides the push that has started a domino effect in expanding recreational trails programs well beyond the Act itself. It has had many positive effects on the horse industry in America.

- It has brought horsemen together in collaborations with other diversified trails user groups. As an example, there have been many innovative seasonal partnerships between cross country skiers and horsemen.

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- It has heightened awareness of safety issues, both as it relates to individual sports, and as different users interrelate with one another. In the horse industry, this has meant an increased use of protective headgear, with a resulting significant decrease in the number of injuries and fatalities.

- Several national breed organizations have instituted awards incentive programs to encourage recreational riding. Through such programs, the NRTFA has financially bolstered the horse industry -- a segment of the economy which makes a greater contribution to the gross national product than the tobacco industry.

- A number of State horse councils also have instituted trail riding awards programs, whose record-keeping components have provided useful demographics to State and Federal agencies, as well as private enterprise.

- It makes healthful, affordable family recreation accessible to Americans of all interests and persuasions. Horsemen are not all Burt Firestones, but, for the most part, are secretaries, firemen, teachers, or factory workers, who devote the major portion of their personal resources to their hobby.

- It has fostered some unique partnerships, not only among user groups, but among America's major corporations, as well. For instance, Dupont is a primary sponsor of National Trails Day. We even saw Honda America, General Motors, a municipal parks department, and the National Coöperative Extension collaborate on a Trails video.

- It has meant that many trails that were in danger of being closed have been able to be kept open. This is important because demand doesn't cease when a trail closes. It just means that existing trails receive heavier use, thereby degrading all the quicker.

- The NRTFA encourages conservation of, and appreciation for open spaces, a consideration important to agriculturalists and environmentalists alike.

Like motherhood and apple pie, it's hard to find fault with this program.

We must continue the important benefits fostered by the NRTFA. It seems that the most likely channel is through an amendment, enabling funding through contract authority, rather than an annual appropriation. We need your assistance in the following:

- The support of the FHWA's legal staff in framing legislative language to effect contract authority, and the support of your office for that bill, when it is introduced.

- Your ongoing support of the NRTFA through a special appropriation enabling the continuation of this Act in FY 1994. We need continuity of funding to encourage participation by the States and grass roots organizations.

Thank you for finding the time to meet with us and listen to our concerns.

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Henry Agonia, Four-wheel driving, Bakersfield, CA

Welcome to this group. I guess we're welcome to Washington. I'm from California -- I was going to say the Los Angeles area, but Loren kind of put that out of reach now *[general laughter]* so I'm not from Los Angeles anymore; I don't want to be considered whatever it was that he said we would be if we lived in Los Angeles.

I represent four-wheel drive recreation enthusiasts across the nation, and four-wheel drive enthusiasts have had a working relationship with Federal agencies. We've worked with the DOI, with NPS and BLM, particularly with the use of forest roads and those areas in regards to four-wheel drive recreation programming. And we've had that relationship for quite a while. What the NRTFA does is it really begins to develop a new relationship: a relationship with the FHWA. As four-wheel drive enthusiasts, most of our vehicles are licensed, so we've had a relationship with the FHWA, but it's been one of roads and asphalt and bridges, particularly in California. The entire freeway system in California is probably what we think of most when we think of the FHWA.

So we have had a relationship. But, I think the opportunity that is provided by the NRTFA is a new relationship with the FHWA. And it has really broadened your constituency and moved you into a new area, and that is recreation trails, or recreation transportation. Maybe that's something that needs to be defined, a new term: recreation transportation, as a part of one of the goals of the agency. If that is one of the goals of the agency, then it has been very successful in the NRTFA, because the NRTFA basically takes transportation dollars, and uses those dollars as a carrot - as a catalyst to bring a variety of recreation trail groups and trail interests together for one common thing. And that's basically to expand the recreation trail opportunity across the nation, and, at the same time, expand the transportation system across the nation, too.

I guess I see the importance of this for you particularly as a *[hesitation]* -- I was once a political appointee. I hate the term 'political appointee', I'm sorry, I'm not sure if you like it either [*General laughter. Ms. Garvey replied,* "It's not so bad, it beats 'unemployed'. *More laughter, Mr. Agonia continued,* 'I know what that's like, too.'] But, I guess as an appointee in a new administration, and an administration that is focused at collaborative public input as well as collaborative planning -- that's one of the things that this administration talks about -- I think one of the things that could happen for this agency by supporting this, is that it really does push the agency outside of the dots, it pushes the agency 'pushing the envelope'. It really makes this agency move into another area. The real key is that if the agency can to this, and do it effectively, then that would be a feather in the cap of the agency and a feather in the cap of this new administration -- that collaborative efforts do work; collaborative planning does work -- and by basically supporting something that has already been identified by a previous administration or a previous Congress that can work -- by just funding this thing and keeping it going -- that spirit could be part of the spirit for this new administration in a lot of areas, and particularly in the recreation trail community area. That's where we see a real need for this administration to help us, and we will in fact then help this administration.

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George Lear, ATV riding, Centreville, VA

My name is George Lear. I'm from Virginia, but also I have been active in Maryland and Pennsylvania locally supporting the development of trails, especially ATV trails. And that's the constituency I represent. I want to tell you just a little bit about the riders - the ATV folks that I represent: typically family and friends who enjoy the outdoors and trails and a healthy recreational approach. But we also have less mobile folks, older folks, people with disabilities. ATVs are used probably most often to support other recreational activities: the hunters, the fishermen, campers, mushroom pickers down in the George Washington National Forest, that sort of thing. I want to share a couple of beliefs that the group has. We believe in trail sharing and we also appreciate the opportunity that this wonderful program provides for all trail users to work together, finally. We have a few views to share and a few requests to make.

The Act is based on the fair share concept - that is that the gasoline taxes paid by users of recreational vehicles should be used to fund their recreational facilities and programs, especially trails. So far, this has been a great program, and has experienced a tremendous launch, thanks primarily to the FHWA, and the excellent work they have done to date.

The big "however" is coming up: they need a little bit of your help now -- and we do, too -- on a couple of issues that I'd like to bring up.

One of them has to do with a study, called the Oak Ridge Study. This was a study to determine the amount and distribution of off-road recreational fuel use by the States for the purpose of allocating funds to the States. The study was contracted by the FHWA Office of Highway Information Management. The contractor was the Oak Ridge National Laboratories. The study was contracted for an October completion. It has not been delivered. Can you please find out the status of this and urge it along? *[Ms. Garvey replied that she would find out about it. Mr. Lear explained that he was asking for the Administration's intervention because he was inspired by the President's ability to bring the Palestinians and Israelis together, and to resolve the American Airlines strike in time for him to get home for Thanksgiving.]*

Section 8003 of the ISTEA requires an annual report from the Treasury Department specifying the estimate of the amount of non-highway recreational fuel taxes received by the Treasury during that fiscal year. This was due at the close of the fiscal year. We understand the study has been done, but it has not been forwarded because there is no appointee to sign off. Can you, as an appointee, also intercede and help to get this moving? We believe that this study will show that the actual amount attributable to non-highway sources approaches $200 million. Therefore, the $30 million that we're seeking falls pretty short of our fair and equitable distribution.

And finally, I would like to issue a little bit of an invitation (since probably I'm the one that's working with the actual implementation of this program closest to Washington, DC; and that is in the George Washington National Forest). I'd like to issue an invitation to join our group and come out there and take an ATV trail ride sometime and see what this is all about on the ground.

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Jeff Butson, People with Disabilities, Madison, WI

Hi, Ms. Garvey. I'm Jeff Butson. I'm from Madison, WI. I represent people with disabilities. I'm also chair of the State Trails Council in Wisconsin. So my views are sort of two-fold, allowing for the disabled perspective but also my State perspective. I would like to share that with you first.

This Act has been a great thing for Wisconsin. We have a very extensive, well developed trail system we're very proud of. And this has generated excitement this year in just the short period it has been in place. Although we only had a short time frame to communicate the Act to the different user groups and get their project proposals back and evaluate them. We had over $500,000 worth of requests in proposals. We could only fund $237,000 of that. So, obviously the interest is out there. We see that will only grow. The excitement was not only there for this year, but also what this bill could mean for Wisconsin if it grows to the full funding that it was intended to. So we are excited about that possibility as it does occur.

I've seen some very positive things as a result of this. It has generated new enthusiasm in our State for its trails system. Although we have a lot of volunteers, it never hurts to have a new partner on board. I think it certainly is a shot in the arm for the rest of the players who have been sort of slugging along for years developing these systems.

It has also encouraged a heightened level of coöperation between what I consider diverse groups if not competing interests in our State. I have had to put out several brush fires between these groups, and this is at least a little bit toward getting these groups to work together to meet the diversified needs of this Act. And that, I think, is a real positive benefit.

I think, from the DOT's perspective, that it has been a real plus because it has generated some good public image for our State DOT, which has had some trouble with our environmental groups in Wisconsin. They are seen now as looking beyond concrete, and in a State like Wisconsin -- we're very progressive, and care a great deal about our environment -- that means something to our people. So that's a real good, positive aspect from the DOT's perspective.

Now from a disabled perspective. I've been disabled since 1970. When I first became disabled there were no curb cuts; the term "accessible" didn't mean anything to anybody. If I went out, I never saw anybody else in a wheelchair. We were an invisible community. To get our needs met, I felt like I was on the outside looking in, and we weren't taken into consideration. This Act has allowed the disabled community a voice in a National planning process. And my participation on this panel, although I am a non-voting member, has generated a heightened awareness on the part of my fellow members and has resulted in some positive aspects for the constituency that I represent. Access is a major criteria that we take into consideration (or the States should take into consideration) when we develop these proposals. As a result, the disabled community is able to enjoy these trails a lot more. We're going to be able to get out a lot more in the future as the ADA [Americans with Disabilities Act] has more of an impact. This goes hand in hand with that. I'm proud to have the opportunity to represent the disabled community. This forum has allowed us to express our needs and interests so that you become aware of them; because until we can bring those needs to your attention, you won't know how to meet them. When we're allowed to do that -- I think there's a real genuine concern on people's parts, and I've seen that from the FHWA's part -- they're willing to help us. I'm really happy to have that opportunity. So I thank you.

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Anne Lusk, Cross-country skiing, Stowe, VT

My name is Anne Lusk. I'm from Vermont, and I represent cross-country skiing. Also in the State of Vermont, I'm chair of the Vermont Trails & Greenways Council, which is a similar roundtable group with both motorized and non-motorized users. Also, I am creator and builder of the Stowe Recreation path in Stowe, where I live in Vermont, which is used by young and old, athletic and non-athletic, low income and high income. It's used as an educational outlet for the elementary schools, and they say there is more business conducted on the Stowe Recreation Path at noon than in the local coffee shop in the morning.

I also was one of the core riders for a thousand miles by bicycle from Boston to Washington, DC to explore the route for the East Coast Greenway, and my daughter was also part of the core team. This past summer I rode 600 miles from Hartford, CT, through Massachusetts, to Montréal to explore the route for the North American Greenway. That would be the first international greenway, connecting the East Coast Greenway (which will go from Maine to Florida) all the way to Montréal, so it would connect the American greenway system with the Canadian greenway system.

The #1 reason for giving us $15 million in a supplemental appropriation is that you and the FHWA believe in us and you believe in the program. The FHWA, right now, better than anyone else in the Nation, knows exactly where the money is going, how it was spent, and also by whom it was spent.

Also, by funding this program, you will send a message to Congress that you believe the National Recreational Trails Funding Program is a winner. That's the FHWA reason, and that's an easy one. But I understand that you're going to have critics of your defense of the program, and therefore you need a more grounded defense.

So your second reason for taking into consideration, also with the deficit and the social needs, is that NRTFA's greatest return is on the dollar. With recreation trails, you have:

1. Documented lowered health care costs when communities provide recreation close to home.

2. Dollars saved in yearly land maintenance when volunteer groups get out and do the work.

3. Volunteer labor which far exceeds the necessary match as encouraged by the Act.

4. A tourism return, especially in rural economies, some based originally on grazing and mining.

5. Youth training programs at low cost.

6. Free family counseling by giving parents and children a place to recreate together and thus the NRTFA provides a family healing ground.

Thank you.

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Stuart Macdonald, Chair and Government Official, Denver, CO

Mr. Macdonald began saying, 'I'll just try to sum things up very briefly, but I'm sold on trails now.' *He mentioned that, when Secretary Peña was appointed as Secretary of Transportation, the* Denver Post Magazine *showed a picture of Mr. Peña running with his wife and baby stroller on a trail.*

I'm Stuart Macdonald, from Denver, Colorado. As the government official on the Committee, I represent the State agencies who are working to help communities and trails groups to build a system of trails throughout the country. You've heard how the Act benefits the whole spectrum of trail users, that the funds came from the users' fuel taxes, and even the small amount of funding available the first year brought out a tremendous response from our cities, towns, and citizens' groups.

For the 3 years previous to the NRTFA, Colorado had $100,000 annually for grants to help local trail development. But, each year, we received from $1.6 million to $3 million in requests. For the FY 1993 Trails Program, Minnesota had $3 million in project requests, but had only $300,000 in funds. Alaska received 63 applications for funding, but could only fund a few. Pennsylvania had requests for 87 projects totalling $3.5 million, but funded 17 for $215,000. So we know the need and local commitment to trails projects is there.

But beyond the funding, there are many other reasons that the NRTFA has been a tremendously valuable start to many of our State programs. The Act has enabled every single State to convene a volunteer State trails committee to bring genuine citizen input into trails and transportation planning. The ISTEA requires a bicycle and pedestrian coördinator in each State and funds that position. The NRTFA relies on volunteer Committees and covers some administrative costs. The Act also brings to the FHWA this new constituency: a huge cross-section of the public that's interested in intermodalism.

The Act is promoting volunteerism, education programs, donations from the business community, contributions of local governments, and all kinds of ways to leverage the funds. The Act is bringing together every trails interest and activity, helping us all find common ground both on public lands and in our cities. In short, we know there is a tremendous interest in trails throughout the U.S., and the Act has helped the States be genuinely effective in helping people develop and maintain trails.

There are several issues we will provide to you in the form of recommendations that will help us out. We need support from the U.S. DOT for funding the National Recreational Trails Trust Fund.

First, we feel the FY 1994 appropriation was omitted by [Congressional] staff on a technicality, and we ask that you include funding in any amendments which may be proposed by the Administration.

Second, we ask that an allocation for the trails program be included in the DOT's FY 1995 budget.

Third, we ask that you recommend contract authority to satisfy the intent of the law, and ensure the continuation of the Recreational Trails Program.

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Closing Comments

Ms. Garvey said she appreciated being able to join the Committee meeting. She found the session very helpful, and found some of her own beliefs reinforced. Referring to Stuart Macdonald's comments about Secretary Peña, she said, *'He speaks very eloquently about the humanization of transportation: that we are not just about moving vehicles, we are about moving people and goods. And he also talks about the responsibility that we have to the next generation, and the responsibility that we have to improve the quality of people's lives. And I don't think there is any program that more dramatically illustrates that than the program that you all have talked about today.'*

She found several aspects helpful while listening, such as the observations raised by Anne Lusk and the amount of fuel taxes paid by off-road vehicle recreationists. She noted that times are difficult for funding new programs, but these points are important. She said, *'Certainly, the whole importance of this program to humanization of transportation -- the whole relationship of this to quality of life -- I think will be very compelling arguments with the Secretary and with others within the Administration.'* She thanked the Committee for sharing their comments and observations.

SEC. 306. CLEVELAND HARBOR, OHIO.

Section 1079 of the Intermodal Surface Transportation Efficiency Act of 1991 (105 Stat. 2018-2019) is amended—

(1) by striking the semicolon at the end of subsection (b) and inserting a period; and

(2) in subsection (d)—

(A) by striking "279.31 feet" and inserting "269.31 feet";

(B) by striking "127.28 feet" and inserting "137.28 feet";

(C) by striking the comma following "Grid System";

(D) by striking "33°-53'-06" east" the first place it appears and inserting "33°-53'-06" west";

(E) by striking "north-westerly" and inserting "northwesterly"; and

(F) by striking "174.764 square feet (4.012 acres)" and inserting "175,143 (4.020 acres)".

SEC. 307. SURFACE TRANSPORTATION AND UNIFORM RELOCATION ASSISTANCE ACT OF 1987 AMENDMENTS.

Section 117(b) of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (49 U.S.C. App. 1608 note; 101 Stat. 233) is amended—

(1) in paragraphs (2) and (3) by inserting "or cooperative agreement" after "contract" each place it appears; and

(2) by adding at the end the following new paragraph:

"(7) CONVERSION OF CONTRACTS.—The Secretary may convert existing contracts entered into under this subsection into cooperative agreements.".

SEC. 308. INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT TECHNICAL AMENDMENTS.

(a) NATIONAL RECREATIONAL TRAILS.—Section 1302 of the Intermodal Surface Transportation Efficiency Act of 1991 (105 Stat. 2064-2065) is amended—

(1) in subsection (c) by striking "Act" each place it appears and inserting "part";

(2) in subsection (c)(2)(B) by inserting after "reserves" the following: "an amount equivalent to";

(3) in subsection (d)(1) by striking "national surveys" and inserting "a 1-time national survey";

(4) by adding at the end of subsection (d)(1) the following:

"The 3 percent limitation in the preceding sentence shall not apply to expenditures to pay the cost of conducting the 1-time national survey described in subparagraph (C).";

(5) in subsection (e)(4)(B) by inserting "the State" before "may be exempted"; and

(6) in subsection (e)(4)(B) by inserting "funds may be" before "expended or committed".

(b) SOUTHERN FLORIDA COMMUTER RAIL.—Section 3014 of such Act (105 Stat. 2168) is amended by striking "(49 U.S.C. 1607a)".

(c) ROAD TESTING OF LCV'S.—Section 4007(d)(1) of such Act (49 U.S.C. App. 2302 note) is amended by striking "on board" and inserting "onboard".

(d) NATIONAL COMMISSION ON INTERMODAL TRANSPORTATION.—Section 5005 of such Act (49 U.S.C. 501 note; 105 Stat. 2160-2162) is amended—

(1) in subsection (d)(1) by striking "11 members" and inserting "15 members";

(2) in subsection (d)(1)(A) by striking "3 members" and inserting "7 members"; and

(3) in subsection (i) by striking "1993" and inserting "1994".

(e) SECTION 6017.—Section 6017 of such Act (105 Stat. 2143) is amended by striking "502(a)" and inserting "5002(a)".

SEC. 309. IMPROVED BUS SAFETY.

(a) APPLICABILITY OF FEDERAL MOTOR CARRIER SAFETY REGULATIONS TO BUS OPERATIONS OF PRIVATE MOTOR CARRIERS OF PASSENGERS.—Section 206 of the Motor Carrier Safety Act of 1984 (49 U.S.C. App. 2505) is amended by striking subsection (h) and inserting the following new subsection:

"(h) APPLICABILITY TO BUS OPERATIONS OF PRIVATE MOTOR CARRIER OF PASSENGERS.—Not later than 6 months after the date of the enactment of this subsection, the Secretary shall issue regulations making the relevant commercial motor carrier safety regulations issued under subsection (a) applicable to all operations by private motor carriers of commercial motor vehicles providing transportation of passengers in interstate commerce.".

(b) EDUCATION PROGRAM.—Not later than 6 months after the date of the enactment of this Act, the Secretary of Transportation shall develop and implement an education program to inform all private motor carriers of passengers that they must comply with the Federal commercial motor vehicle safety regulations issued under section 206 of the Motor Carrier Safety Act of 1984 when providing commercial motor vehicle transportation of passengers in interstate commerce.

(c) REPORTS.—

(1) INITIAL REPORT.—Not later than 12 months after the date of the enactment of this Act, the Secretary of Transportation shall submit to Congress a report describing in detail the regulations that have been issued pursuant to subsection (a) and the education program being developed and implemented under subsection (b).

(2) SUBSEQUENT REPORTS.—Each year for a period of 4 years on the annual anniversary date of the report submitted to Congress under paragraph (1), the Secretary of Transportation shall submit to Congress a report describing in detail the status of enforcement of the Federal commercial motor vehicle safety regulations issued under section 206 of the Motor Carrier Safety Act of 1984 to operations by private motor carriers of commercial motor vehicles providing transportation of passengers in interstate commerce.

GENERAL LEAVE

The SPEAKER pro tempore (Mr. MONTGOMERY). Pursuant to the rule, the gentleman from West Virginia [Mr. RAHALL] will be recognized for 20 minutes, and the gentleman from Missouri [Mr. EMERSON] will be recognized for 20 minutes.

The Chair recognizes the gentleman from West Virginia [Mr. RAHALL].

Mr. RAHALL. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days within which to revise and extend their remarks, and include therein extraneous material on H.R. 3276.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from West Virginia?

There was no objection.

Mr. RAHALL. Mr. Speaker, I yield myself such time as I may consume.

Mr. Speaker, H.R. 3276 provides for technical, conforming, and clarifying amendments to correct mistakes and omissions in the Intermodal Surface Transportation Efficiency Act of 1991 and related law.

The bill also makes necessary, noncontroversial, minor policy changes to facilitate ISTEA's implementation.

I would like to make it clear that the bill creates no new budget authority, does not authorize new transportation demonstration projects, and does not earmark apportioned funds for any new purpose.

This is a no-fat, sodium-free, low-cholesterol technical corrections bill.

In effect, it is sugar-free ISTEA.

Title I of the bill relates to the highway program. Provisions of this title make a number of technical and conforming amendments such as providing for the proper reference to the Dwight D. Eisenhower System of Interstate and Defense Highways, providing for high priority corridors to be part of the interim National Highway System, and making a series of technical, conforming, and clarifying amendments to the metropolitan and statewide planning, toll road, bridge, safety, Federal lands highway and bicycle transportation-pedestrian walkway programs of ISTEA.

Provisions of this title also make technical and clarifying amendments to project descriptions under the congestion relief, high priority corridor, rural access, urban and mobility, and innovative project categories.

Title II makes a number of technical, conforming, and clarifying amendments to transit programs such as those involving metropolitan planning and ferryboat operations. Provisions of this title also correct project descriptions under the section 3 discretionary grant program.

And finally, title III makes technical and conforming amendments to programs involving intelligent vehicle highway systems, the Motor Carrier Safety Act, and the recreational trails provisions of ISTEA.

Mr. Speaker, I reserve the balance of my time.

Mr. EMERSON. Mr. Speaker, I yield myself such time as I may consume.

(Mr. EMERSON asked and was given permission to revise and extend his remarks.)

Mr. EMERSON. Mr. Speaker, I rise today in support of H.R. 3276, the ISTEA Technical Corrections Act.

In 1991, we enacted the landmark Intermodal Surface Transportation Efficiency Act, ISTEA, which set our Nation's transportation policy on a new course. In the 2 years since ISTEA's enactment, however, we have become aware of certain minor, inadvertent defects and mistakes which impede the proper implementation of ISTEA's programs. This ISTEA Technical Corrections Act makes these necessary changes to ISTEA.

I want to congratulate Chairman MINETA, Mr. SHUSTER, Mr. RAHALL, and Mr. PETRI on bringing this bill to the floor today and thank them for all of their hard work in producing this important legislation.

I want to emphasize that the bill before you today is truly clean and noncontroversial legislation. It is so clean that I believe it has earned its nickname—"sugar-free" ISTEA. This bill authorizes no new money, contains no controversial policy changes, and authorizes no new projects at all. It is limited to necessary technical corrections and minor policy changes and should be supported by all Members of this body.

In an effort to keep this bill clean and limited to truly technical changes

ATTACHMENT A DRAFT

STATE OFF-ROAD RECREATIONAL FUEL TAX LEGISLATION REQUIREMENT AND THE NATIONAL RECREATIONAL TRAILS FUND ACT

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) included the National Recreational Trails Fund Act (NRTFA). The NRTFA was based on the concept that people using motor fuel for off-road recreational purposes are taxed when fuel is purchased, but receive no commensurate benefits from that tax when the funds are subsequently used for highway purposes. The intention of the NRTFA was to return the benefit of taxes paid to the recreational trail users.

Section 1302(c)(2)(B) of the NRTFA places an eligibility requirement effective December 18, 1994, which requires that, *"in the case of a State that imposes a tax on non-highway recreational fuel, the State by law reserves a reasonable estimation of the revenues from that tax for use in providing and maintaining recreational trails"*. The intent of this requirement was to encourage States to provide State funds for trails in a manner similar to the National Recreational Trails Trust Fund. This would serve as the equivalent of a State match, and would provide more funds for trails than the Federal program alone.

The Federal Highway Administration (FHWA) has primary responsibility for administering the Trails Program. It explained this requirement of the NRTFA in its program guidance as follows:

> *If a State does not provide for an exemption or refund of state taxes paid for fuel that is subsequently used for off-road recreation, then by definition it imposes a tax on off-road recreational fuel use. To remain eligible under the Trails Program, such a State must dedicate the equivalent of a reasonable estimation of State revenue received from taxes on recreational fuel for use on recreational trails and trail-related projects. The NRTFA does not require that these funds come from a State's Highway Trust Fund; the funds may be earmarked from other revenue sources. However, the State's legislation must dedicate an amount equivalent to what the State receives from taxes on fuel used for off-road recreational purposes. This does not include fuel used by boats.*

The FHWA guidance means that "a reasonable estimation" is an estimate of the revenue that a State actually receives from off-road recreational fuel use, but that it does not refund to users.

Many States Need an Extension of the NRTFA Requirement.

The National Recreational Trails Advisory Committee (NRTAC) learned that many States were having difficulty passing the legislation required by the NRTFA. At its meeting in December 1992, one of the first actions of the NRTAC was to pass the following motion:

The Committee recommends that the Secretary of Transportation ask Congress to extend the deadline of Section 1302(c)(2)(B) of the National Recreational Trails Fund Act [by] one year, which extends the requirement for a State to dedicate a reasonable estimation of revenues received from taxes and fuel used for non-highway recreational purposes.

This recommendation was based on several factors:

1. Although the Trails Program was authorized for $30,000,000 per year, the final language of the ISTEA did not include it within Title 23 U.S.C., and did not provide contract authority. The Congress did not appropriate any funds for the Trails Program in Fiscal Year (FY) 1992, and appropriated only $7,500,000 in FY 1993. As a result of the uncertainty of funding for this program, many States delayed any action to implement legislative changes.

2. Some State legislatures meet only once every two years, and have met already for 1993, and will not meet again until 1995. They need the extra time to pass this legislation.

3. Many States do not have reliable information on off-road recreational fuel use, and these States may need more time to study the issue.

4. Some State Departments of Transportation oppose this legislation if it means transferring funds out of a State Highway Trust Fund. Some States have a constitutional prohibition against using their State Highway Trust Fund for non-highway purposes. The NRTFA does not require that the trails funds come from a State's Highway Trust Fund; the funds may come from other revenue sources. However, many States may need extra time to develop legislation that is acceptable to various interests.

Stuart Macdonald, the Advisory Committee's Chair, wrote a letter to Secretary of Transportation Federico Peña dated February 12, 1993 requesting that the Secretary ask the Congress to extend this deadline. This letter was assigned to the FHWA for action. The FHWA asked States to provide information on off-road recreational fuel tax provisions.

The FHWA found that only seven States appear to meet fuel tax requirement of the NRTFA. Eight States have existing laws that need some revision. Ten States reported that they definitely would need an extension beyond December 18, 1994. 17 States probably will need extensions, and twelve more might need extensions.

According to the NRTFA, if a State does not pass this fuel tax legislation before December 18, 1994, the FHWA will be required to withhold funds from that State. The one year extension allows the funds to continue unimpeded, and delays the intent of the NRTFA by only one year. The NRTAC recommended an extension of only one year to keep States from delaying too long.

Many States Find the State Fuel Tax Requirement is Politically Infeasible.

The FHWA research found that the State fuel tax requirement of the NRTFA may not be politically feasible in many or even most States.

The NRTFA assumed that the Trails Program would receive full Federal funding. It did not make provisions for less than full Federal funding. As a result, the NRTFA's requirement means that States would have to spend far more in State funds on trails than they would receive in Federal funds through the Trails Program. Several States have reported that this "poor matching ratio" is not worth their investment or effort.

The following scenario provides an example of this situation:

The Federal Highway Trust Fund receives 11.5¢ per gallon of gasoline purchased. Let us assume that the annual off-road recreational fuel use in State X is 10,000,000 gallons (a reasonable amount for an average State). Then the Federal tax collects $1,150,000 from State X. The amount of funds collected by the State would depend on the State fuel tax rate:

- At a low State tax rate of 7.5¢ per gallon (Georgia), the State would collect $750,000.
- At a high State tax rate of 28¢ per gallon (Connecticut), the State would collect $2,800,000.
- At the average State fuel tax rate of 18.32¢ per gallon, State X would collect $1,832,000.

The problem is that, while the Federal program is authorized for $30,000,000 per year, initial studies indicate that the Federal Highway Trust Fund collects much more. (The Treasury Department is required to determine this figure, but has not yet released its study. Information collected by the FHWA shows that the figure probably exceeds $50,000,000.) Furthermore, the Trails Program has not been fully funded: it was appropriated $7,500,000 in FY 1993, with $15,000,000 proposed by the Administration for FY 1994.

Continuing with the example above, and assuming the Federal Highway Trust Fund actually collects $60,000,000 (twice the amount authorized in the NRTFA):

- Under the $30,000,000 authorization, State X would receive a Federal allocation of $575,000.
- Under a $15,000,000 appropriation, State X would receive a Federal allocation of $287,500.
- Under a $7,500,000 appropriation, State X would receive a Federal allocation of $143,750.

Yet, the NRTFA requires the "average" State X to spend $1,832,000 in State funds to remain eligible for Federal funds, **regardless of the Federal allocation.** This results in a poor matching ratio for the States.[1] Most States are unwilling to dedicate State funds to a program that requires full State funding to remain eligible for a much smaller amount of uncertain Federal funds.

It appears that the Congressional staff and trails advocates drafting the NRTFA were not aware of the differences between the Federal and State fuel tax rates, and the implications of the language in the NRTFA as written.

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[1] Assuming that $60,000,000 is the theoretical "full funding", under the $7,500,000 appropriation, States would have to provide from $5.2 to $19.50 in State funds for each Federal dollar, with an average of $12.75. Under the $30,000,000 authorization, States would have to spend from $1.30 to $4.90, with an average of $3.20. Even under "full funding", States would have to provide from 65¢ to $2.43, with an average of $1.59.

The National Recreational Trails Advisory Committee Proposed a Solution.

The NRTAC discussed the State fuel tax issue at its meeting in April 1993. One NRTAC member suggested that States be required to match the Federal allocation at a 50:50 ratio. This is the ratio required by the Land and Water Conservation Fund Act, which served as a model for the Trails Program. The FHWA staff noted that a few States (six) have State fuel tax rates that are lower than the Federal tax rate, and that, in the event the trails program were fully funded, the 50:50 ratio provision would require these few States to provide more funds for trails than they collect. Other NRTAC members noted that the intention of the NRTFA was to encourage State funding for trails, and that requiring a 50:50 ratio provision actually might limit State funding when most States are collecting far more. The NRTAC approved the following recommendation:

> *The National Recreational Trails Advisory Committee recommends to the Secretary that the word "reasonable" be given flexibility in interpretation in the State fuel tax requirement, and that the Secretary consider the following formula:*
>
> $$\textit{State Spending on Trails} \geq \textit{Federal Allocation} \times \frac{\textit{State Fuel Tax Rate}}{\textit{Federal Fuel Tax Rate}}.$$
>
> [For the purposes of this formula, the term "Fuel Tax Rate" means the amount of the excise tax on motor fuels that is received by the Highway Trust Fund.]

This formula would have the following results:

- Under the $60,000,000 full Federal funding scenario, if the Federal allocation to the State is $1,150,000, then State X would spend at least $1,832,000.
- Under the $30,000,000 full Federal authorization scenario, if the Federal allocation to the State is $575,000, then State X would spend at least $916,000.
- Under the $15,000,000 scenario, if the Federal allocation is $287,500, then State X would spend at least $458,000.
- Under the $7,500,000 scenario, if the Federal allocation is $143,750, then State X would spend at least $229,000.

A lower tax rate State would spend less in State funds; a higher tax State would spend more in State funds. This formula still means that the average State X must provide more in State funds than it receives in Federal funds. Although most States still would have a poor matching ratio, this formula is more acceptable to the States than the current requirement of the NRTFA. This formula also can account for any changes in the Federal or State fuel tax rates.

The NRTAC's recommendation was reviewed by FHWA's Office of Chief Counsel, Program Services division. That office determined that the recommendation does not satisfy the clear reading of the NRTFA. The original FHWA explanation meets the clear reading of the act, and meets the clear reading of the legislative history.

The FHWA Developed Several Alternative Solutions.

The National Recreational Trails Funding Program is likely to face termination if the State fuel tax compliance issue is not resolved. Therefore, the FHWA developed several alternative solutions. The first alternative would require that the NRTFA be part of Title 23 U.S.C.

1. Recommend that the Congress extend Title 23 U.S.C. coverage to the NRTFA. This would provide contract authority for the program. Rescind Section 1302(c)(2)(B) of the NRTFA, and use the ISTEA Section 1021 matching share provision (Section 120 of Title 23), which is 80:20 with a sliding scale. This solution would be more politically feasible in States where the DOT opposes transfers from the State Highway Trust Fund. It would be easier for the FHWA to administer. However, this would alter the intent of the NRTFA with respect to encouraging State funding for trails. Also, there would have to be some exemptions from some Title 23 provisions to meet other goals of the NRTFA and to account for its recreational nature.

The following alternatives do not require Title 23 coverage, although the Trails Program would benefit from Title 23 contract authority. If the NRTFA receives Title 23 coverage, these alternatives would exclude it from Section 1021 of the ISTEA, which provides for an 80:20 matching share. (This means exclusion from Section 120 of Title 23). In all cases, the FHWA recommends that the Secretary ask the Congress to extend the deadline for compliance with Section 1302(c)(2)(B) of the NRTFA by one year. Otherwise, many or most States will become ineligible for the Trails Program.

2. Recommend that the Congress modify Section 1302(c)(2)(B) to require a 50 percent matching share. This is the same matching ratio required by the Land and Water Conservation Fund Act. (States still could choose to provide more State funds.) This matching share would be for the State program, not for individual trail projects.

3. Recommend that the Congress modify Section 1302(c)(2)(B) with the formula recommended by the National Recreational Trails Advisory Committee:

$$\text{State Spending on Trails} \geq \text{Federal Allocation} \times \frac{\text{State Fuel Tax Rate}}{\text{Federal Fuel Tax Rate}}.$$

The following definitions would apply to this formula:

- State Spending on Trails: the amount of money that a State spends in a fiscal year for use in providing and maintaining recreational trails.
- Federal Allocation: the Federal allocation that a State receives through the National Recreational Trails Funding Program.
- State Fuel Tax Rate: the rate of the State excise tax on fuel as of the date of the Federal allocation for the National Recreational Trails Funding Program.
- Federal Fuel Tax Rate: the rate of the Federal excise tax on fuel that is deposited into the Federal Highway Trust Fund as of the date of the Federal allocation for the National Recreational Trails Funding Program.
- This matching share would be for the State allocation, not for individual trail projects.

4. Recommend that the Congress modify Section 1302(c)(2)(B) with a combination of the 50:50 ratio and the formula recommended by the Advisory Committee, as follows:
   - For States with a State fuel tax rate that is lower than the Federal fuel tax rate, require the tax rate formula recommended by the Advisory Committee (Alternative #3).
   - For States with a State fuel tax rate that is greater than the Federal fuel tax rate, require a 50 percent matching share (Alternative #2).
   - This matching share would be for the State program, not for individual trail projects.

   This scenario would provide less trail funding than the Advisory Committee's recommended formula, but would be more politically feasible. It would not require States to contribute more for trails than they receive in the Federal allocation (although States could choose to contribute more). This scenario would provide more funding for trails than the 80:20 match, and still support most of the original intent of the State fuel tax requirement in the NRTFA.

FHWA HEP-50 Staff Recommendation

1. Recommend that the NRTFA be included in Title 23 U.S.C. The NRTFA would be exempted from Section 1021 of the ISTEA (Section 120 of Title 23), based on the phrase "except as otherwise provided in this title". However, the NRTFA may need exemptions from some other Title 23 provisions to account for its recreational nature.

2. Recommend a one year extension for compliance with Section 1302(c)(2)(B) of the NRTFA.

3. Recommend Alternative #4 as a replacement for Section 1302(c)(2)(B):

   - For States with a State fuel tax rate that is lower than the Federal fuel tax rate, require the tax rate formula recommended by the Advisory Committee.

   - For States with a State fuel tax rate that is greater than the Federal fuel tax rate, require a 50 percent matching share.

   - This matching share would be for the State program, not for individual trail projects.

Proposed Language

1. Specific language to include the NRTFA in Title 23 U.S.C. and/or provide contract authority must be developed in conjunction with the Office of Chief Counsel (HCC-10).

2. Section 1302(c) is deleted and replaced as follows:

   (c) STATE ELIGIBILITY.--
   (1) TRANSITIONAL PROVISION.--Until the date that is 3 years after the date of enactment of this Act, a State shall be eligible to receive allocations under this Act only if--
   (A) the Governor of the State has designated the State agency or agencies which will be responsible for administering allocations received under this Act; and

(B) the State's application proposes to obligate the allocations as provided in subsection (e).

(2) PERMANENT PROVISION.--

(A) On and after the date that is 3 years after the date of the enactment of this Act, a State shall be eligible to receive allocations under this Act only if--

(i) the State meets the requirements of paragraph (1);

(ii) a recreational trail advisory board on which both motorized and non-motorized recreational trail users are represented exists within the State; and

(iii) the State spending for providing and maintaining recreational trails is greater than or equal to the Federal allocation received under this Act, except in the case that the State fuel tax rate is lower than the Federal fuel tax rate, the State shall provide funding for trails according to the formula:

$$\text{State Spending on Trails} \geq \text{Federal Allocation} \times \frac{\text{State Fuel Tax Rate}}{\text{Federal Fuel Tax Rate}}.$$

ATTACHMENT B DRAFT

DISCUSSION OF STATE SPENDING ON TRAILS BY THE NATIONAL RECREATIONAL TRAILS ADVISORY COMMITTEE

Excerpt from
Minutes of the Meeting of December 2 & 3, 1992

Committee members noted that, because of the one year delay in appropriating funds for the Trails Program, many States have not begun to work on legislation required by the NRTFA regarding revenue collected by States from taxes on off-road recreational fuel use. Many States might need more time to enact this legislation.

The following motion was made by Anne Lusk and seconded by Bobbi Lipka. It passed unanimously.

The Committee recommends that the Secretary of Transportation ask Congress to extend the deadline of Section 1302(c)(2)(B) of the National Recreational Trails Fund Act [by] one year, which extends the requirements for a State to dedicate a reasonable estimation of revenues received from taxes and fuel used for non-highway recreational purposes.

Excerpt from
Minutes of the Meeting of April 8 & 9, 1993

State Fuel Tax Legislation Provisions

Committee members received copies of **Attachment D** which summarized the status of State Fuel Tax Legislation. It was noted that some States already transfer funds attributable to off-road recreational fuel use in a manner required by the NRTFA, but most do not. Many States said that they would need an extension of the December 18, 1994 deadline to pass the required legislation.

Anne Lusk reported that several people at the National Association of State Recreation Planners conference were concerned about the NRTFA's Permanent Provision requirement for State legislation that reserves State funds for trail projects. The FHWA was interpreting "a reasonable estimation" of off-road recreational fuel use to be the actual amount of off-road fuel use regardless of the Federal allocation received by the State. However, the FHWA interpretation was politically infeasible in some States, because it meant that States would have to spend far more in State funds on trails than they would receive in Federal funds through the Trails Program. If States do not pass the required legislation, they would not be able to receive Federal funds, and the Trails Program would be harmed. Anne Lusk asked the FHWA to reinterpret its definition of "reasonable estimation".

The Committee discussed some options to reinterpret "a reasonable estimation". Bruce Kerfoot noted that the NRTFA assumed the Trails Program would receive full funding. It does not provide a formula for less than 100% funding. He suggested that States be required to provide State funds at

the same ratio that the Federal allocation represents the amount of revenue received through the Federal fuel tax. Roger Pattison suggested that States should match the Federal allocation $1 : $1. Donna Carl of New Mexico State Parks said that a proposed bill was opposed by the State Highway Department because the State share would be much larger than the Federal share. She said it would be easier to support a revised interpretation.

Bill Flournoy said that Bruce Kerfoot's idea could be formulated to allow for differences in State fuel tax rates. Anne Lusk said the formula should allow States to provide a larger share of their own funds if they choose. The Committee agreed on the following formula:

$$\text{State Spending on Trails} \geq \text{Federal Allocation} \times \frac{\text{State Fuel Tax Rate}}{\text{Federal Fuel Tax Rate}}.$$

Anne Lusk moved, and Bernice Paige seconded the following motion, which passed unanimously.

The National Recreational Trails Advisory Committee recommends to the Secretary that the word "reasonable" be given flexibility in interpretation in the State fuel tax requirement, and that the Secretary consider the following formula:

$$\text{State Spending on Trails} \geq \text{Federal Allocation} \times \frac{\text{State Fuel Tax Rate}}{\text{Federal Fuel Tax Rate}}.$$

The Committee asked the FHWA staff to produce a position paper on this issue, and ask the legal counsel if the interpretation would be acceptable.

THE AMERICAN INSTITUTE
OF ARCHITECTS

Statement of

Robert A. Peck

on behalf of

The American Institute of Architects

before the

Subcommittee on Surface Transportation of the Committee on Public Works and Transportation

March 3, 1994

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Mr. Chairman and Members of the Subcommittee, I am Robert A. Peck, Group Vice President for External Affairs for the American Institute of Architects. I also served for several years as Administrative Assistant to Senator Daniel Patrick Moynihan, and as a counsel on the U.S. Senate Environment and Public Works Committee.

Accompanying me today is AIA Senior Director Albert C. Eisenberg, who is also a member of the Arlington, Virginia, County Board and in that capacity serves on several land use and transportation panels in the Washington Metropolitan area.

The AIA is the professional association of 56,000 members representing the nation's architects. This year we celebrate our 137th anniversary.

The AIA appreciates the opportunity you have given us to express our views today on the proposed National Highway System (NHS). While we associate ourselves with the statements of other members of the Surface Transportation Policy Project who appear today, we focus our testimony on how the NHS should relate to transportation and community planning.

The AIA and ISTEA

Architects across this country are deeply involved in efforts to make our cities, towns, and counties more prosperous, attractive, functional and livable. Our members have an everyday relationship with the transportation policies of this country--in their individual practices, on local planning and zoning boards, and as staff professionals with local governments and metropolitan planning organizations, among other ways. Thus, it was natural that the AIA was active in the passage of the Intermodal Surface Transportation Efficiency Act of 1991.

In 1990, the AIA was the host and convener of the Livable Communities Coalition, a wide-ranging group of design and planning organizations, preservation associations, environmental interests, and elected officials. We gathered together to ensure that transportation policy would truly contribute to the livability of this nation's communities. Our coalition was one of several coalitions that formed the Surface Transportation Policy Project (STPP). In partnership with STPP, the AIA contributed to the development of ISTEA's planning and citizen participation provisions, and the creation of its transportation enhancement program.

Mr. Chairman, you and your colleagues can take great pride in the enactment of ISTEA. Your work established monumental, visionary legislation with enormous potential for benefitting this nation's economic and social progress. As we applaud this law, we know that its potential will be realized only if it unfolds at the local and state levels as intended. We are here today because we are concerned that the proposed NHS meet the spirit of ISTEA, and fit within the provisions that make the act so vital to this country's communities.

The ISTEA Planning Process

The AIA believes that any NHS projects, their connections to intermodal facilities, and any modifications to NHS in the future should all be anchored in ISTEA's planning process at the metropolitan and state level, as provided, respectively, in Sections 134 and 135. We also believe that these activities should involve the full participation of the public, which is a hallmark of ISTEA.

The ISTEA planning process is the heart of the act, and rightly so for several reasons. First, the act's purposes, which include creation of a National Intermodal Transportation System, of which the NHS

would be a part, can only be achieved through intelligent planning. Second, ISTEA's planning process ensures that transportation will be in harmony with the other critical elements that determine a community's success. Third, through the planning process the public can help shape the transportation decisions which so fundamentally affect their daily lives. Fourth, with billions of dollars at stake at a time when resources are severely limited, ISTEA's planning requirements make it more likely that the funds will be spent wisely and efficiently.

Although previous transportation law had its accomplishments in reducing the isolation of rural areas and fueling economic growth, Congress recognized that the old way of doing business would not prepare the country for the complex world marketplace of the post-Interstate era. Congress saw that the ambitious goals of ISTEA would not be achieved without modernizing our approach to transportation policy.

The old way featured wish lists of projects that localities would send to their states for funding. As Secretary Peña stated in his announcement of the NHS last December, projects have often been selected not according to transportation needs, but instead according to which mode drew the most funding. The General Accounting Office found that proposed projects were not subjected to comparative analysis to see which mode or project served best. Transportation decisions usually defined "need" as moving vehicles, rather than people and goods, and often failed to account for transportation's impact on land use and growth patterns, community livability, or on long range economic goals. Former approaches did not consider transportation as an interconnected system of many modes that must act as a servant of community goals.

Until ISTEA came along there was no legislative requirement for state transportation planning and little ability for major metropolitan areas to have any direct voice in how transportation would best serve their citizens. The door to transportation decisions was often closed to the public at large.

Congress recognized that the nation could no longer allow this state of affairs to continue, without an enormous waste of public funds, widening urban sprawl, increasing air pollution, deepening isolation of cities from their suburbs, mind-boggling congestion, and declining American economic competitiveness and productivity. So that the nation could prepare for a transportation system able to meet the demands of the next century, ISTEA established a planning process to organize and direct transportation decision-making. This planning process includes the following key features:

- Focus on maintenance and the efficiency of the existing system;
- Consideration of transportation as part of a unified, interconnected, coordinated system, not a collection of individual projects;
- Attention to the relationship between transportation and land use, and the consistency of transportation to long-and short-term development plans;
- Comparative analyses across modal lines and among various proposed project options to ensure the selection of the ones that best accomplish community or regional goals;
- Encouragement of intermodal connections; and
- Active, early involvement of the public in transportation decision-making.

The ISTEA Planning Process and the NHS

At the same time that the law provided for its planning process, it also required that Congress designate a National Highway System and the map to show it. According to the Department of Transportation, the NHS provides the means to facilitate the integration of highway, waterway, rail, and air systems by providing access to major ports, airports, intermodal transportation facilities, and public transportation facilities. "In effect," states the Department, "the NHS will link all modes of travel to provide a seamless transportation system." The key concept embodied in the NHS is linkage of modes, whether "by road, rail, transit, air, water, and pipelines," and of intermodal facilities on a national and international scale.

Yet the proposed NHS and its relationship to the planning process is currently unclear in the law. The proposed NHS is rooted in a map that the Department of Transportation submitted to Congress in 1991, and which is referenced in the ISTEA. The routes on this map, the changes proposed by the States, and the map sent to Congress by this Administration were not developed according to ISTEA's planning process because these routes, both existing and planned, predated the act. Of the routes selected for inclusion by the Department of Transportation, only two percent of the mileage would be new, and those are already included in existing state plans or in an identifiable stage of implementation. While the balance of the routes may be existing, it is unclear whether their future involves just maintenance as highways, expansion for the purpose of chasing the automobile, or incorporation of non-highway modes, such as transit or bicycle trails, all allowed under the law's flexibility provisions for NHS funds.

Since the passage of ISTEA, states and localities have experienced a complicated period of transition from the old way of doing business to the new. Change was not expected overnight and it is slow in coming. Metropolitan Planning Organizations (MPOs) have operated under general guidance from the Department of Transportation since the spring of 1992. Clean air conformity regulations affecting transportation plans did not become final until July 1993, and state and metropolitan planning regulations did not become final until October 1993. Adoption of Long-Range Plans at the metropolitan level is not required until the fall of this year, and not until next year for states. Meanwhile, states have had to enact new state formulas for allocation of funds to regions and to metropolitan areas according to ISTEA's new funding categories.

New working relationships and cooperative procedures have had to be established among cities and counties within the same metropolitan area, and between metropolitan areas and their states. New mechanisms for involving the public have also been developed. In addition, technical planning tools, including forecasting methodologies, clean air measurements, and land use/transportation relationships, to name several, have had to be developed, and some are not yet readily available or workable. Since transportation planning must now involve determining the performance of projects, modes, and systems in comparison to one another, planning has become more complex. The establishment of an NHS as part of a larger National Transportation System, adds still more complexity to the task.

The AIA's Recommendations

The Administration proposes that the Congress adopt language approving the designation of the NHS, as required in ISTEA, and further proposes a process for subsequently completing

identifications of intermodal connections and for making wide-ranging modifications, employing the metropolitan and statewide planning process established in Sections 134 and 135 of the Act. The Administration's legislation underscores the proposition that the NHS should not exist in isolation, but as part of an integrated system of modes and intermodal facilities.

We agree with these provisions, but do not believe they go far enough. A reading of the proposed language makes it clear that unless the states propose new National Highway System segments, including intermodal connections, or deletions of existing route segments and connections, projects advanced on designated NHS routes may stand outside the planning process. We believe it would be a mistake to set up a modern planning system to guide transportation decision-making, and then to establish an NHS that does not arise from that system. This would inject unwarranted confusion into an already complicated work program for states and MPOs. Also, to the extent that any of these routes embody the deficient results of the past's inadequate approaches to transportation planning, they are ill-equipped to contribute to transportation's future.

Incorporation of the designated NHS into the ISTEA planning process is the only way that states will be able to determine what routes should be deleted or modified, without inadvertently undermining the NHS. At the very least, projects proposed for funding on the Congressionally-designated system should go through ISTEA's planning provisions, and the Department's report to Congress on the proposed NHS says explicitly that this will be the case. The recommended legislative language however, appears to reserve that requirement only for modifications to the designated map. In addition, there is no explicit direction to involve the public in decisions about developing the routes, either those designated by Congress or those modified through the state and metropolitan planning process. This omission just compounds the failure to involve the public in a meaningful way at the earlier stages of the NHS development and designation process.

There is every reason to validate the designated NHS through the prescribed planning process. There is also every reason to make the public part of a planning process involving the NHS, for the Congressionally-designated routes as well as for any modifications in the future. For one thing, to bring all decisions about the NHS and the NTS into a consolidated planning framework just makes common sense in the spirit of the National Performance Review, which calls for a better investment of public funds. To have 159,000 miles of highway routes lie outside the planning process and the citizen participation process treads on the basic tenets of that review and the Administration's emphasis on empowerment, efficiency, and coordinated planning.

Validating the NHS through ISTEA's planning process also makes certain that the designations truly contribute to ISTEA goals, correcting deficiencies in the previous approach to decision-making. This means that NHS routes and projects or activities proposed for them will be placed in a larger framework, measured against standards of efficiency, performance, cost-effectiveness, positive effect on social, economic, and environmental needs, intermodalism, transit usage, and community goals and values. It would provide an organized, systematic means of making choices among competing projects and activities that are demanding the same limited dollars. It would ensure consideration of all options. Finally, it would make certain that the NHS properly performs its function of supporting the National Transportation System the Administration envisions.

In sum, the AIA asks the subcommittee to endorse the Administration's proposed legislative language, but with the following additions:

1. Validate the NHS routes through ISTEA's planning process;

2. Provide that all projects and activities to be funded on the designated routes and any modifications to those routes in the future go through the planning process; and

3. Make clear that the public participation process that governs transportation funding generally should also apply to NHS.

Mr. Chairman, that concludes my testimony. I am pleased to answer any questions you or the members of the subcommittee may have.

Comments on the Establishment of the National Highway System (NHS)

to the

Committee on Public Works and Transportation
Subcommittee on Surface Transportation
United States House of Representatives

by

Susan Perry

Senior Vice President, American Bus Association
Chair, Travel and Tourism Government Affairs
Council Working Group on Transportation

March 3, 1994

Two Lafayette Centre, 1133 21st Street, NW, Washington, DC 20036, Tel: (202) 293-5407, Fax: (202) 293-3155

The Travel and Tourism Government Affairs Council appreciates this opportunity to testify in support of the National Highway System.

The Government Affairs Council is comprised of thirty-six national organizations, representing every segment of the travel and tourism industry in the United States, along with twelve senior corporate executives from the industry. Included among the Council's membership are representatives of all modes of transportation, accommodations, food services, travel agents, tour operators, recreation facilities, attractions, meetings and conventions, and state and local travel and tourism officials. A list of the Council's membership is attached.

In the United States, travel and tourism generated in 1993 an estimated $397 billion in expenditures -- 6.3 percent of the GNP. It was once again the nation's leading export industry, earning $74 billion in expenditures from 46 million international visitors while the 45 million Americans traveling abroad spent only $49 billion -- creating a $25 billion balance of trade surplus. In terms of gross receipts, travel and tourism is the nation's third largest retail industry, behind only automotive dealers and food stores. The six million direct jobs provided by travel and tourism rank it second only to health services in terms of employment. Another 5.3 million jobs are created indirectly.

States and communities throughout the nation are increasingly striving to take advantage of the significant role travel and tourism can play in local economic development. It is the first, second or third largest employer in thirty-four states, the largest employer in eleven. Travel and tourism jobs are rapidly increasing, with industry employment in the last ten years increasing at a rate more than twice that of the rest of the economy, and forecast to grow in excess of 30 percent in the next twelve years. Increasingly, these are top quality jobs, as more than 650,000 executive jobs exist in all segments of travel and tourism today, and the average travel and tourism employee benefits from growing services sector hourly earnings that are outpacing earnings increases in all but a few private industry sectors.

It is evident that the capacity of the travel and tourism industry to continue to grow and generate high quality jobs is directly related to the capacity of our nation's transportation infrastructure to function efficiently and effectively. Travel and tourism depends on all modes of transportation, but none is more important than our highway system. Travel and tourism strongly supports coordinated intermodal transportation networks, because so many trips are likely to involve flying and driving, and perhaps rail and water travel. However, safe and modern highways must remain the backbone of our overall transportation infrastructure, as approximately 80 percent of all travel involves highway use.

The travel and tourism industry was gratified when Congress enacted the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). That historic first post-interstate highway bill was a landmark for travel and tourism as it explicitly gave unprecedented recognition to this industry and provided a number of opportunities for travel and tourism to have its views considered in the formulation of surface transportation policy at all levels of government. For travel and tourism, however, and for the nation, nothing in ISTEA was more significant than its provision for a National Highway System (NHS).

Since enactment of ISTEA, the Travel and Tourism Government Affairs Council has consistently supported timely action by the Federal Highway Administration, the Department of Transportation and Congress to establish the NHS. Less than a year ago, on April 28, 1993, we testified before this Subcommittee on the implementation of ISTEA, and said, "It is vitally important to the nation that the complete National Highway System called for by ISTEA be completed expeditiously." In the past six months, we have met with top White House staff, with Transportation Secretary Federico Pena, and with Federal Highway Administrator Rodney Slater in support of the NHS.

This is why we were so pleased when Secretary Pena announced the Administration's proposed NHS last December. As designated, the approximately 155,000 mile NHS will comprise about four percent of all road mileage in the United States, but it will carry more than

forty percent of all highway traffic. It will require minimal new highway construction (fewer than 3000 miles), but will instead focus on maintaining and modernizing existing roads. Not only will it improve safety, efficiency and economy, but it should even be more environmentally positive, because it will not require substantial new construction and should greatly reduce that congestion which creates greater pollution. We believe that the National Highway System as proposed by the Administration is fundamentally sound and should be approved by Congress. We particularly commend the intermodal emphasis of the Administration's NHS proposal.

While the highest priority should be given timely enactment of the NHS, we also urge Congress to consider additional legislative changes or clarifications in ISTEA. The Travel and Tourism Government Affairs Council specifically supports the following proposals:

(1) The "Transportation Enhancements" section of ISTEA should be amended to allow the construction and renovation of state highway information centers to be eligible for funding as transportation enhancements. This is not a request for additional money for transportation enhancements, and the ultimate decision as to which projects would receive funding would still rest with the states. It seems reasonable, however, to provide support to information centers, which play a significant role in informing and directing

travelers about those scenic, historic and archaeological sites, scenic byways, historic preservation and other projects otherwise funded by ISTEA.

(2) While annual state transportation plans are required by ISTEA to give consideration to the needs of "recreational travel and tourism," Metropolitan Planning Organizations (MPOs) do not have such a requirement in ISTEA regarding their transportation plans. We urge that this anomaly be corrected and that MPOs also be required to give explicit consideration to the needs of travel and tourism.

(3) With regard to the national scenic byways program created by ISTEA, two problems have arisen which require clarification. First is the problem presented by ISTEA's "minimum allocation" formula which has the unintended effect of creating a disincentive for so-called "donor states" to apply for scenic byways grants. Second is the problem related to outdoor advertising where the Federal Highway Administration has interpreted ISTEA as allowing the prohibition of outdoor advertising along an entire scenic byway. We believe the correct interpretation would allow such outdoor advertising as permitted by the Highway Beautification Act, i.e. such advertising would be allowed in areas zoned commercial or industrial, or in areas where there is bona fide commercial or industrial activity. We believe legislative language clarifying both these issues would be helpful.

In conclusion, we clearly recognize that establishment of the National Highway System is of obviously vital importance to many interests and industries, including the manufacturers who must ship their products economically on the highways, the trucking companies who need safe and efficient highways, and the automobile manufacturers and construction interests whose profitability is directly related to the highways. No industry, however, will be more directly affected by the NHS than travel and tourism. No group will be more affected than this industry's six million present employees, and those additional millions likely to be employed in future decades by the growth of travel and tourism, from those working in the thousands of businesses that provide products and services to travelers to those working for other modes of transportation that depend on swift, modern highways to transport their customers for some portion their trips.

We respectfully urge enactment of the National Highway System.

TRAVEL AND TOURISM GOVERNMENT AFFAIRS COUNCIL
MEMBERSHIP

MEMBERS

Air Transport Association
Airports Council International
American Automobile Association
American Bus Association
American Car Rental Association
American Council of Highway Advertisers
American Hotel & Motel Association
American Recreation Coalition
American Sightseeing International
American Society of Travel Agents
American Travel Affairs Council, Inc.
Association of Retail Travel Agents
Gray Line Worldwide
Highway Users Federation
Hospitality Sales and Marketing Association International
International Association of Amusement Parks and Attractions
International Association of Convention and Visitor Bureaus
International Council of Cruise Lines
Meeting Planners International
National Air Carrier Association
National Association of RV Parks & Campgrounds
National Business Travel Association
National Council of Area and Regional Tourism Organizations
National Council of State Travel Directors
National Council of Travel Attractions
National Council of Urban Tourism Organizations
National Park Hospitalty Association
National Restaurant Association
National Tour Association
Passenger Vessel Association
Recreation Vehicle Industry Association
Society of American Travel Writers
Society of Travel Agents in Government
Travel Industry Association of America
United States Tour Operators Association
U.S. Travel Data Center

MEMBERS AT LARGE

Roger H. Ballou, American Express Travel Related Services Co., Inc.
Edwin I. Colodny, USAir Group
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Edward P. Faberman, American Airlines, Inc.
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Charles Gillett, New York Convention & Visitors Bureau
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Robert E. Juliano, Hotel Employees and Restaurant Employees International Union
William S. Norman, Amtrak
Joe Shapiro, The Walt Disney Company
Jonathan M. Tisch, Loews Hotels
Scott D. Yohe, Delta Air Lines, Inc.

TESTIMONY OF

AMERICAN BUS ASSOCIATION

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION

OF THE

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

UNITED STATES HOUSE OF REPRESENTATIVES

MARCH 3, 1994

American Bus Association
1100 New York Avenue, N.W.
Washington, D.C. 20005
(202) 842-1645

Mr. Chairman and members of the Subcommittee:

My name is Susan Perry. I am Senior Vice President Government Relations, American Bus Association. I appreciate this opportunity to testify on behalf of the Association on the participation of private enterprise in providing transit services.

ABA is the national trade association for the intercity bus industry. The Association has some 600 operator members, many of whom provide transit service under contract with Federal Transit Act recipients.

EXISTING POLICY ON PRIVATE ENTERPRISE PARTICIPATION IN FEDERALLY FUNDED TRANSIT OPERATIONS

In Section 3(e) and 8(o) of the Act, the Congress directed the Secretary of Transportation to provide for or to encourage "to the maximum extent feasible" the participation of private enterprise in transportation programs funded under the Act. Section 9(f) provides that in preparing a final program of projects for submission to the Secretary, the FTA recipient "shall consider any such comments and views, particularly those of private transportation providers. . ." These directives are not self-executing. They must be implemented by the Federal Transit Administration.

Accordingly, on October 22, 1984, FTA, at the urging of the General Accounting Office, issued a statement of policy on compliance with the private enterprise provisions of the Act. Two years later, on December 5, 1986, FTA

provided more detailed guidance in its Circular No. C 7005.1. Documentation of Private Enterprise Participation Required for Sections 3 and 9 Programs. The 1984 statement of policy and the 1986 circular called for:

- consultation with private providers early in the local planning process;
- consideration of the capabilities of private operators in providing new or substantially restructured mass transportation service;
- consideration of fully allocated costs when comparing the service proposals of public and private entities;
- identification of barriers to private enterprise participation;
- triennial review of Federally funded transit projects; and
- establishment of a written dispute resolution process.

Existing requirements for private enterprise participation are not onerous. They provide for full participation by and cooperation with local transportation authorities. In our opinion, FTA's existing regulatory guidance strikes the right balance between public/private and local/Federal interests and should not be changed.

THE PROPOSED RECISION OF EXISTING POLICY ON PRIVATE ENTERPRISE PARTICIPATION GUIDANCE

In a notice published in the Federal Register on November 26, 1993, FTA proposed to rescind its existing policy on private enterprise participation. The proposed recision, in our opinion, is an unwise and unlawful abdication of authority delegated by the Congress to the Secretary of Transportation. The rationale given by FTA for reversing its policy was stated as follows:

> Congress vested the States and local mass transportation agencies with wide discretion and responsibility in making transit decisions responsive to local needs. FTA therefore believes that local disputes involving private enterprise involvement should be resolved locally, not by FTA.

Although the Congress undoubtedly intended local public bodies to exercise broad authority in the transit decisionmaking process, nothing in the Act remotely suggests that final authority for interpreting and enforcing the private enterprise provisions of the Act was not vested in the Secretary. Nevertheless, FTA concluded in its Notice of Proposed Recision that it was "the original congressional intent that local decisionmakers, not FTA, determine the appropriate level and conditions for private enterprise involvement. . ." In other words, Secretaries of Transportation over the past two or three decades have misconstrued the Act.

ADVANTAGES OF PRIVATE ENTERPRISE PARTICIPATION

Over the years, transit operations have been plagued by the problems of monopoly, first private and later public. In the Federal Transit Act of 1964, the Congress sought to ameliorate the inefficiencies and insensitivity of public monopolies by providing for and encouraging, to the maximum extent feasible, the participation of private enterprise and creating a climate conducive to the cooperation of public and private entities. Within that legal and policy framework, mass transportation services promise to improve and the public stands to benefit. What has been attained over the past 30 years should not be cast aside by permitting the degree and conditions of private enterprise participation to be determined with finality by hundreds of local decisionmakers.

In the Federal Transit Act of 1964, as amended, the Congress envisioned a rational system of mass transit operation and regulation; not a system spawned by hundreds of local transportation officials acting independently of one another and with no review by the Secretary of Transportation. Existing policies respecting private enterprise participation are working reasonably well and require no radical fix.

The FTA's proposed policy recision is a Draconian Solution to a non-existent problem.

TESTIMONY OF RAY D. PETHTEL
COMMISSIONER, VIRGINIA DEPARTMENT OF TRANSPORTATION
BEFORE THE HOUSE PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE ON SURFACE TRANSPORTATION

Thursday, March 3, 1994

VIRGINIA DEPARTMENT OF TRANSPORTATION

VALUE ENGINEERING

MARCH 3, 1994

We, at VDOT, are proud of our expanded Value Engineering Program accomplishments since becoming the first State Department of Transportation to implement a comprehensive Value Engineering Program. VE has saved approximately 39 million transportation dollars over a span of three years, and including administrative costs, has provided the Virginia taxpayers a return on investment in excess of 30:1. For the fiscal year 92/93, the return on our investment in VE was 60:1. These gains are impressive, and our VE Program continues to be an aggressive one that embraces the Value Engineering spirit of maintaining quality while simultaneously lowering costs.

VDOT made a committment to Value Engineering in the mid 1970's with reviews being conducted on selected projects and programs. In 1985, VE was assigned to our Management Services Division with the appointment of a full-time coordinator whose duties included organizing the training and leading requested reviews. So, Virginia was not only the first state mandated to conduct VE, we were also the first state to employ a full-time coordinator.

Between 1985 and 1989, we had reviewed more than 50 projects and had produced an average savings of 10 percent of the estimated project costs. This experience was so positive that by late 1989, at my insistence and direction, we developed plans for a major expansion of our VE Program. During that time, then-Delegate, now Congresswoman Leslie Byrne introduced Value Engineering legislation at the 1990 Virginia General Assembly Session. VDOT supported House Bill 423 which was subsequently signed into law on July 1, 1990. With the passage of this law, Virginia became the first state to have a value engineering statute applying to all transportation projects with a cost of 2 million dollars or more.

With the legislative mandate in place, we continued refining and adding to our VE Program. From a review of our current and planned construction programs, the State was divided into five major regions and a coordinator was employed to cover each region. Once on board, the five regional coordinators were given extensive training in VE theory and application, and also in areas dealing with interpersonal skills, group facilitation, problem-solving skills/techniques, and computer applications.

Simultaneously, an advisory committee was established to provide leadership, field and central office coordination, and suggestions for program improvement. The automated tracking system for monitoring savings and "opportunities" for consideration, (our word for recommendations) was also enhanced and refined.

With that brief history, it is important to consider VDOT's accomplishments over the past three years. Although the legislation stated that VE reviews would be conducted on all transportation projects costing 2 million dollars or more, we had administratively expanded that concept to include reviews on roadway and bridge standards and specifications, policies and procedures, capital outlay projects, and project requests from other states and localities. To date, we have conducted 232 VE reviews with an accepted savings of over $39 million dollars.

At the request of the Maine DOT, a team of our employees assisted the design consultant and the state of Maine by conducting a VE review of the Topsham Brunswick Bypass. This was a 32-million dollar project, providing a 2.5-mile bypass which included two bridges. The VE team, consisting of VDOT and MDOT employees, and led by one of our VE coordinators, suggested accepted value opportunities of 1.7 million dollars.

VDOT also conducted a review on a Petroleum Oil and Lubricant Facility for the US Army. As a result of a road relocation project, capital outlay plans for this Army facility were studied by a VE team of VDOT employees and US Army representatives. From that VE review, 18 opportunities were accepted with a savings of $352 thousand dollars.

We have also conducted a VE review of our own Public Involvement Process to find methods to enhance our communication process with the citizenry. Special consideration was given to the use of new technologies to reach a wider audience. The suggestions

that were implemented included a less formal method for the public to present their views on roadway projects. As a result of the suggestions, the public now can write or privately record comments for use by our designers. Other suggestions included utilizing cable television, direct mail, and toll-free telephone numbers. All of these suggestions have been adopted.

VDOT has also conducted experimental studies to determine the stage of design best suited to VE review. We have conducted VE studies on 15 projects at the scoping stage (initial stage of plan development) and will, again, conduct a study when the plans are 60 percent complete. From the preliminary results, it appears that a VE review may be beneficial to conduct on all large, complex projects at both stages.

Although the dollar savings of VE are impressive, many accomplishments are intangible. One positive outcome, for example, is the training our employees get as VE team members. Since our typical team is comprised of approximately four to six members, we believe it is important for each of those members to become knowledgeable in the VE process and to receive training. Over 1,300 employees including 300 external to VDOT have participated in this training. We believe that knowledge of the process not only contributes during the VE study, but also provides individuals with creative and critical problem-solving skills for utilization every day. We at VDOT, believe that these results continuously challenge the way we do business and provide us with enhancements and benefits throughout our program.

VDOT has been nationally recognized as a model program. Inquiries and requests for assistance from other states come in regularly.

We are proud of our expanded program and look forward to continued savings of transportation dollars and improved plan design.

PRESENTED BY:

RAY D. PETHTEL, COMMISSIONER

AMERICAN SOCIETY OF
CIVIL ENGINEERS

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TESTIMONY OF

JAMES W. POIROT, P.E.,F.ASCE

PRESIDENT

OF THE

AMERICAN SOCIETY OF CIVIL ENGINEERS

ON THE

NATIONAL HIGHWAY SYSTEM

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

MARCH 3, 1994

Civil engineers make the difference
They build the quality of life

82-611 – 94 – 23

Good afternoon Mr. Chairman and distinguished members of the Subcommittee on Surface Transportation. I am pleased to be here today, on behalf of the 115,000 members of the American Society of Civil Engineers (ASCE), to discuss the Administration's proposed 159,000 mile National Highway System (NHS).

At the outset I wish to commend the leaders and members of the Committee on Public Works and Transportation, which obviously includes all the members of this panel, for working so hard for so long to bring the issue of the nation's public works infrastructure to the fore. The current Administration successfully campaigned for the White House on the theme, among others, of "Rebuilding America". The Rebuild America Coalition, of which ASCE is a founding Steering Committee member, has grown to 57 national organizations representing various public and private sector groups. The American people, in poll after poll, show overwhelming support for increased investment in our vital infrastructure facilities because they know that improving and expanding America's public works - be it in highways, bridges, mass transit, airports, or protecting and cleaning up the environment - is a sound investment in economic development, the quality of life, U.S. competitiveness and jobs. All of these positive developments are attributable, in large measure, to the determination, skill and foresight of this committee.

AMERICAN SOCIETY OF CIVIL ENGINEERS

ASCE is a unique organization that is uniquely qualified to comment on the nation's public works infrastructure in general and the NHS in particular. ASCE, founded in 1852, is the oldest national engineering society in the United States. Membership, held by more than 115,000 individual professional engineers, is about equally divided among engineers in private practice; engineers working for Federal, state or local governments; and those employed in research and academia. The Society's major goals are to develop engineers who will improve technology and apply it to further the objectives of society as a whole, to promote the dedication and technical capability of its members and to advance the profession of civil engineering.

NATIONAL HIGHWAY SYSTEM

The NHS is the logical successor to the Interstate Highway System, which is, without a doubt, one of the great civil engineering achievements of our time. Moreover, the NHS will be the vital backbone of what will come to be known as the National Transportation Systems (NTS). An efficient, safe and truly integrated NTS is inextricably linked to our nation's future economic growth and prosperity. The NHS is an important first step toward the NTS.

While comprising only 4% of the nation's 3.9 million miles of public roads, the NHS is expected to carry more than 40% of total highway traffic, 70% of all commercial truck traffic and 80% of all tourism traffic.

As proposed, the NHS has five components: the 45,000 mile Interstate Highway System (29% of NHS); 21 congressionally mandated high-priority corridors identified in ISTEA, which total 4,500 miles (3% of NHS); the non-interstate-highway portion of the Strategic Highway Corridor Network (STRAHNET) identified by the departments of Defense and Transportation (DOT) as the most critical highway links in the existing transportation system, which totals 15,700 miles (10% of NHS); STRAHNET connectors, with 1,900 miles of roads linking major military installations and other defense-related facilities to the STRAHNET corridors (1% of NHS); and 91,000 miles of other important arterial highways that serve interstate and regional travel and that provide connections to major ports, airports, public transportation facilities and other intermodal facilities (57% of NHS). Less than 2% of the proposed NHS consists of new mileage. Of the total approximately 119,000 miles are rural and 40,000 miles are urban.

Improving the efficiency of the U.S. transportation system could pay big economic dividends. The U.S. spends nearly $1 trillion per year - 17% of our gross domestic product - on transportation services, according to DOT. A mere 1% improvement in the overall

efficiency of the U.S. transportation system would translate into roughly $100 billion in savings across the economy within a decade.

With respect to highway safety, Representative Bud Shuster, ranking minority member on the House Public Works and Transportation Committee, announced that the NHS "will save between 1,400 and 3,600 lives a year on our highways".

The Intermodal Surface Transportation Efficiency Act (P.L. 102-240) or ISTEA authorizes $21 billion for the NHS over six years (fiscal years 1992-97) in addition to the funds authorized for the remaining interstate-highway programs: interstate construction ($7.2 billion), interstate substitute ($960 million) and interstate maintenance ($17 billion). Since enactment of ISTEA, the states have been able to use NHS funds on any road classified as a principal arterial. Following enactment of the NHS, funding will be limited to routes on the NHS.

ASCE commends the committee for holding these hearings well in advance of the September 30, 1995 deadline for Congress to pass legislation authorizing the NHS. A failure by Congress to enact legislation in a timely fashion would jeopardize important funding for this essential network of roads. The NHS is intended to insure that the nation's busiest roadways receive priority treatment at all levels of government. We trust that your willingness to conduct hearings early in the NHS authorization process bodes well for timely

committee markup of NHS legislation in the coming months. Chairman Mineta recently indicated a desire to bring such legislation to the House floor before the August recess. We are concerned about widespread reports that the Senate is considerably less interested than the House in addressing NHS before next year. The number one objective for the NHS legislation should be timely reauthorization before the September 30, 1995 ISTEA deadline.

SUFFICIENT FUNDING

ASCE shares the concern expressed by some organizations that there may not be adequate funding for ISTEA in general, and the NHS in particular, during the out years. ASCE was strongly opposed to the provision in the Omnibus Budget Reconciliation Act of 1993 (OBRA), P.L. 103-66, that raised the federal gasoline tax by 4.3 cents per gallon and diverted these additional revenues to the general fund. ASCE will support any effort to return the 4.3 cents to the Highway Trust Fund (HTF). We are delighted that the 2.5 cents diverted from the HTF by the 1990 budget accord will be returned to the HTF on October 1, 1995. ASCE believes that stable funding for ISTEA through FY 1997 will relieve some of the tension building between highway and transit advocacy groups as a result of the funding flexibility provisions contained in ISTEA which allow for highway dollars to be used on mass transit projects. Moreover, ASCE

strongly endorses the use of innovative financing techniques, such as greater tax-exempt financing, low interest loans, state revolving loan mechanisms and privatization to address the nation's myriad infrastructure needs.

While Congress has boosted funding for highways and mass transit in recent years, funding has been below the levels authorized in the $151 billion, six-year ISTEA. Inadequate funding of this landmark legislation, in addition to complex new procedures resulting from ISTEA, have led to limited use of the flexibility provisions. According to testimony received by this subcommittee last October, 3.3%, or $683 million of the $20.4 billion in highway funds that could have been shifted in FY92 and FY93 to mass transit, actually were transferred. As state and local governments gain greater familiarity with ISTEA, and assuming that adequate funds become available, ISTEA's flexibility provisions may find greater acceptance. ASCE supports full implementation of the ISTEA planning and funding provisions and opposes any attempt to dilute the ISTEA planning process.

MAINTAINING PUBLIC CONFIDENCE

As I alluded to earlier, the American people support sound investments in building and maintaining our public works infrastructure. They would even support additional gas taxes if they

knew the funds were going to be spent wisely on our surface transportation systems. At times, however, the mass media paints a distorted picture of infrastructure expenditures by deriding Congress for alleged wasteful infrastructure spending. In reality, of course, this image is more a perception than a reality.

Nonetheless it is important that we sustain the public's strong support for infrastructure investment and not burden the NHS authorization bill with projects that will, either fairly or unfairly, invite unwanted media criticism.

There are reports that the committee received well over 200 funding requests from House members for special highway and transit projects costing in excess of $1 billion. Accommodating these additional requests would make it difficult to fully fund ISTEA's core programs at their authorized levels in the absence of additional funding. In an effort to maintain broad public support, and control media misperceptions, we respectfully suggest that, if projects are to be added, the committee should adopt strict criteria, perhaps including consultations with state and local transportation officials, for the selection of special transportation projects.

FEDERAL CAPITAL BUDGET

Related to the issue of funding is the concept of a federal capital budget. ASCE, and the Rebuild America Coalition, strongly

endorse use of a multi-year capital development budget at the Federal level to separate investment needs from operating expenses. The House Public Works and Transportation Committee voted unanimously last year to adopt a federal capital budget as part of H.R. 3400, a bill to implement the National Performance Review. Although this provision was removed form H.R. 3400 by the Rules Committee, the overwhelming vote of your full committee was a positive development. Recent debate in the Senate on the Balanced Budget Amendment has also focussed on distinguishing federal capital budget expenditures from other government spending. President Clinton's FY 1995 Budget proposal also recognized the importance of implementing a capital budget and indicated, "this process...will be completed with the 1996 document". Momentum is indeed building for adoption of a federal capital budget which will aid in planning infrastructure development.

WARRANTY/GUARANTEE CLAUSES

An issue that emerged during congressional consideration of ISTEA in 1991, and could appear again this year, is the matter of allowing state agencies to use warranty and guarantee clauses on federal contracts for highway design services. While fully supporting the thrust of Section 1043 of ISTEA, which directs the General Accounting Office (GAO) to complete a study on ways to improve the quality of U.S. highways, ASCE is opposed to legislative

or regulatory mandates that would impose warranty and guarantee clauses on highway designers without regard to the realities and practices of the highway construction industry.

The typical engineers' professional liability policies currently contain an exclusion to the effect that the carrier "....will not defend or pay under this policy for claim and claim expenses arising out of ....express warranties or guarantees". Additionally, the owners of highways, typically governmental agencies could choose to improve the longevity and quality of highways constructed in the U.S. by increasing construction standards and investing more in the initial construction. Under the current procurement system for highway design, construction, operation and maintenance in this country, the design professional simply can not assume liability for and guarantee the performance of a highway facility that is built, owned and maintained by other parties.

The aforementioned GAO study, which will include an examination of the warranty/guarantee clause issue, was originally due in December 1993, but is now expected sometime this spring.

METRICATION

ASCE vehemently opposed a provision in the Department of Transportation and Related Agencies Appropriations Act of 1994,

P.L. 103-122, which prohibits the expenditure of funds on any highway signs using the metric system. Section 331 of P.L. 103-122 is a blatant contradiction of the 1988 Omnibus Trade and Competitiveness Act, P.L. 100-418, which declared that it was the policy of the United States to convert to metric (SI) units by 1992. This provision was supported by ASCE. Since 1876, ASCE has supported the implementation of the metric standard in order to achieve international uniformity of measurements. ASCE believes that it is vital for long-term U.S. competitiveness to convert to the metric systems.

Given the passage of the North American Free Trade Agreement (NAFTA), the arrival of the 1994 World Cup Soccer Tournament to the United States, and the upcoming 1996 Summer Olympics in Atlanta, Georgia now is as good a time as any to move beyond such anachronistic opposition to the metric system.

ASCE respectfully recommends that all pertinent measurement distance and speed signs on the NHS and the future NTS utilize the metric system in accordance with P.L. 100-418.

QUALIFICATION BASED SELECTION OF ENGINEERING SERVICES

ASCE has recently become concerned about myopic efforts in the U.S. Congress to allow low bidding of design services. Procuring engineering services on the basis of price, instead of

qualifications, would undermine project quality and ultimately increase overall project construction costs.

Selection of consulting engineers and related service professionals, including consultants and subconsultants on construction projects, should result from competition based on the qualifications and resources best suited to complete a project successfully in terms of performance, quality and cost-effectiveness. Qualifications and resources, including training, professional licensing, experience, skills, capabilities, special expertise, personnel and workloads are paramount considerations in engaging engineering services. Costs of these services, while important and meriting careful negotiations and performance accountability, are a small portion of overall project costs and should be subordinate to professional qualifications and experience.

ASCE supports procedures such as those specified by the Brooks Act (P.L. 92-582) and the American Bar Association's Model Procurement Code for State and Local Governments for the engagement of engineering services. In applying these procedures, the selection, procurement and administration of engineering services should be the responsibility of the owner or the owner's engineering staff.

ASCE promotes and encourages, as a key objective, engineered works that improve quality of life to the fullest extent possible and

that take into account public health, safety and welfare. When viewed from a broad perspective, this objective must include safety, performance, quality and cost effectiveness. ASCE feels that this objective is best met when emphasis in the selection of engineering services is placed on the qualifications and resources that would accomplish a given assignment.

RESEARCH AND INNOVATION

ASCE urges continued, if not greater federal commitment to education, research and development related to infrastructure facilities to foster innovation and to increase productivity in design, materials, construction, maintenance and operations while maintaining engineering quality and structural integrity. Encouraging innovation and expeditiously disseminating these new ideas, technologies and processes will enable us to derive greater benefit from every dollar invested in the NHS and the still-evolving NTS. ISTEA authorizes an impressive $835 million for transportation R&D over six years, with $659 million dedicated to Intelligent Vehicle Highway Systems (IVHS). The Administration has proposed increasing support for IVHS research in FY 1995 by $75 million to a level of $289 million. Investing "better" and "smarter" infrastructure dollars will improve the quality of key infrastructure

components, like the NHS, while also bolstering public confidence in infrastructure investments.

CONCLUSION

In conclusion, Mr. Chairman and members of the committee, ASCE urges swift and timely enactment of NHS legislation that is as free as possible of provisions and excesses that will invite media scorn and undermine public confidence in infrastructure investments in general and the NHS in particular. The NHS will help to guide and focus investment decisions at all levels of government. ASCE pledges to work with the committee in passing the NHS before the September 30, 1995 ISTEA deadline.

Adequate funding, including return to the HTF of 4.3 cents per gallon gas tax diverted from the HTF by P.L. 103-66, will brighten prospects for NHS investment and relieve the tension between highway and transit groups. The time has come for adoption of a federal capital budget and we will work with the Congress to make it happen. Moreover, innovative infrastructure financing mechanisms must be encouraged.

Warranty and guarantee clause provisions which surfaced during the ISTEA debate in 1991, are a liability trap for most engineers under our current procurement system. Efforts to force

warranty/guarantee clauses on design professionals should be resisted.

It is high time that conversion to the metric system, which is continuing markedly in other sectors of U.S. society, be extended to U.S. highway signs and the NHS is an ideal system on which to begin this conversion.

Congress should vehemently oppose any initiative to low-bid engineering design services. Low bidding ultimately compromises project quality while inflating project construction and operating costs.

Transportation research and innovation promises to improve the value of future investments in the NHS and the ultimate NTS.

Mr. Chairman, this concludes my testimony. I would be happy to answer any questions or provide additional information to the committee.

Statement of William J. Roberts
Legislative Director, Environmental Defense Fund

before the

Subcommittee on Surface Transportation
Committee on Public Works and Transportation
U.S. House of Representatives

March 3, 1994

Introduction

On behalf of the Environmental Defense Fund (EDF) and its over 200,000 members, we appreciate the opportunity to testify before the Subcommittee on the designation of the National Highway System (NHS).

As you know, there has been considerable discussion over the past several years on the impact of so-called environmental "unfunded mandates." One recent environmental law that created a number of new state and local obligations was the Clean Air Act Amendments of 1990 (CAAA). However, whatever the merits of these arguments in other contexts, the adoption of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), at least theoretically, provides ample funding for transportation-related CAAA obligations.

Unfortunately, the reforms in ISTEA have not fulfilled the promise of adequate financial assistance to urban and suburban areas afflicted by unhealthy air. The funding priorities set forth by ISTEA have been ignored by state departments of transportation as obligation authority has been disproportionately tilted to traditional highway programs – such as the National Highway System and Interstate Maintenance – and away from programs that could help CAAA compliance, such as the Surface Transportation Program and the Congestion

Mitigation and Air Quality Program. In addition, funding eligible for intermodal flexibility has rarely been used for modes other than highways.

Perversely, transportation planning decisions, which could guide investments to environmentally and economically productive investments, have been ignored in the development of the NHS map designation before the Congress. Finally, the provision of dedicated funding for certain large metropolitan communities in the STP program has been undermined by state decisions not to fully obligate funds for the STP program.

EDF and many other environmental organizations are deeply concerned that the goal of clean and healthful air in the nation's cities is being undermined through the implementation of ISTEA. The intent of this Committee and others in Congress was to provide meaningful relief to the nation's polluted cities in their efforts to reduce transportation-related pollution. We believe that the designation of the NHS is a vital opportunity to fulfill the congressional commitment, begun in 1990 and 1991, to help America's cities clean their air.

Recommendations

In order to fulfill the promise of the CAAA and ISTEA, EDF believes that the President's NHS proposal must be amended in several important respects. We believe that each of these changes will enhance the transportation objectives of ISTEA, as well as improve our ability to meet the nation's clean air goals.

1. *Suballocation to Metropolitan Areas.* As noted earlier, we strongly believe that the nation's nonattainment areas need help to address their CAAA obligations. Although some funds were required to be allocated to metropolitan regions in the STP program, it is clear after two years of funding decisions that NHS projects have bypassed these areas. Even though 75 percent of the nation's

population live in urban and suburban communities and 81 percent of travel occurs in these areas, states spent 70 percent of their NHS funds in non-urbanized areas (less than 50,000 population).

Even setting aside clean air concerns, this allocation of resources also makes no sense given the distribution of the nation's congestion problem. Only 2.1 percent of rural principal arterial mileage is experiencing congestion, compared with 70 percent of the urban Interstates experiencing severe congestion. EDF believes that the Congress should follow the model of the State of California and require that NHS funds be suballocated to large metropolitan regions suffering air pollution and congestion problems.

Nothing in this proposal would affect apportionment decisions made in ISTEA. It would simply rearrange the distribution of obligation authority within the states. Also, states without metropolitan areas in excess of 200,000 population would not be affected at all, nor would states who already obligate reasonable NHS funds to their large urban areas. Such a change would only set a floor for metropolitan funding in the NHS program.

Given the overwhelming importance of these large urban and suburban centers to the nation's economy, targeting some NHS funds for their use makes economic and environmental sense.

2. *Intermodal Investments and Flexibility*. Another major shortcoming of the ISTEA implementation has been the failure to use funding flexibility. ISTEA clearly and unequivocally permits the use of federal transportation funds for a wide variety of modal alternatives; flexibility that is available for NHS funds. Regrettably, STPP has found that very little funding has been made available for intermodal or non-highway projects. According to STPP research, only 1 percent of all NHS funds were transferred to the STP program for potential multi-modal

purposes. The commitment of Secretary Pena and the Administration to a truly multimodal transportation system is severely undermined by funding decisions that single-mindedly focus on one mode.

As a result, EDF supports requiring states to set aside at least 10 percent of their annual NHS funds for non-highway, intermodal projects. We believe that this set aside requirement will jump start efforts to expand the use of federal funds for other modes. EDF continues to support substantial state and local authority of project selection and funding decisions, but our experience with the early implementation of ISTEA makes clear that states and MPOs require some additional incentives to redirect funds to non-highway purposes. This intermodal set aside could help achieve this objective.

3. *Planning Should Design the NHS.* One of the most egregious shortcomings of the proposal NHS designation is that it was drawn long before state and metropolitan requirements in ISTEA were fulfilled. Congress has before it a map that was developed without public involvement, without selection criteria, without an environmental, energy or even economic analysis, and without consideration of the many planning factors set out in the ISTEA amendments.

One of the more glaring examples of the shortsightedness of this proposal is the inclusion of several major new beltways in areas that already suffer severe air pollution problems. For example, the map includes a major new beltway around Atlanta even though Atlanta is currently classified as a serious nonattainment area. How can Congress designate such a major new facility before anyone at the state or MPO level has determined it would comply with the requirements of the Clean Air Act? The Administration does not propose amending the Clean Air Act as part of its designation legislation, so we believe that any new roads proposed should be conditionally excluded from the map until the facilities have been shown to comply with the Clean Air Act.

But, the inclusion of these beltways is only an example of a larger problem. There is a real risk that the designation of the NHS will lock into place a system of roads and highways that may not be fully adaptive to changing economic trends, planning objectives or environmental goals. Many of these objectives will not become clear until state and MPO long range plans are completed over the next few years.

EDF believes that, in order for the NHS to serve its stated purpose of identifying the most significant roads and highways in America, it should be a dynamic map that can be readily amended to reflect changing circumstances – such as changes in planning goals and targets. Congress should explicitly allow the NHS map to be altered by states and MPOs as they see fit, as long as the Secretary ensures that the national interest in the NHS is preserved.

This flexibility will go a long way to putting the horse back in front of the cart and allow planning to drive NHS designation, and not the other way around.

4. *Emphasize Maintenance.* Throughout ISTEA, the Congress stressed the need to tend to our existing infrastructure before investing in new projects. EDF strongly supports this bias for maintenance. For example, EDF strongly supported requirements in ISTEA to restrict Interstate Maintenance funds to maintenance needs, rather than new capacity or new roads.

Regrettably, no explicit emphasis on maintenance exists in the provisions for NHS funding. Although it is true that states are required to develop a number of maintenance-related management systems, none of those systems will necessarily dictate NHS funding decisions. The Administration has stated that the NHS designation is not intended to create a new mega-Interstate highway system, but without explicit restraints on the use of NHS funds for new capacity or new roads, such an outcome cannot be prevented.

EDF supports a straightforward requirement that no NHS funds may be used for new or expanded highway capacity on NHS designated roadways, unless the state can show that none of its existing NHS roads are in poor condition. This would not prohibit the use of NHS funds for new capacity. It would merely require the states and MPOs to at least ensure that their NHS roadways are in fair condition before such new investments are made.

5. *Establish Criteria and Process for Designation of the NTS.* EDF strongly supports the efforts of the Administration to make the NHS part of a larger, more coherent, National Transportation System. However, the process for determining this system should be an open, inclusive one guided by meaningful criteria that emphasize the economic, energy, environmental, and social impacts of the system.

The NHS designation process suffered two major shortcomings that should be avoided in designating the NTS. No formal requirements were included for full and meaningful public participation in the local, state and federal designation process. Maps were drawn at the state level, often with little or no public participation. The NTS designation process should be open and inclusive and should explicitly allow the public to participate.

Second, the NHS designation was made with no underlying criteria. Not only were ISTEA planning criteria ignored, but many states appear to have made recommendations without the use of any criteria whatsoever. EDF believes that the NTS designation should require the states and U.S. DOT to evaluate its proposals against some common sense criteria: what impact or importance do the designations have to the U.S. economy? what impact do these systems have on the environment? why is this proposed system more efficient and cost-effective than other systems? Answers to each of these questions and perhaps others will help guide Congress in its deliberations on this much larger transportation agenda and provide it with meaningful evaluative tools to steer its decisions.

* * * * *

In conclusion, EDF believes that the NHS designation process is a prime opportunity to help fulfill the promise of ISTEA, a promise that has been sidetracked in the first two years of the program. We are not seeking to overhaul ISTEA. Our proposals are narrowly limited to the NHS program and the President's recommendations regarding the NTS. However, we believe that adoption of these changes could go a long way to dramatically improving the environment while enhancing the nation's transportation system.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

STATEMENT

BY

MARK ROSENBERG, M.D., M.P.P.

DIRECTOR, NATIONAL CENTER FOR INJURY PREVENTION AND CONTROL

CENTERS FOR DISEASE CONTROL AND PREVENTION

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

MARCH 3, 1994

Introduction

Good afternoon, Mr. Chairman and Members of the Subcommittee. My name is Mark Rosenberg. I am the Director of the National Center for Injury Prevention and Control at the Centers for Disease Control and Prevention (CDC). I appreciate the invitation to speak to you today and bring a public health perspective to your deliberations on traffic safety measures.

The National Center for Injury Prevention and Control

To provide you with some background on who we are and what we do, I will briefly tell you about the National Center for Injury Prevention and Control. The goal of our Center is to improve the health of Americans by preventing premature death and disability caused by nonoccupational injuries and reduce the human suffering and medical costs associated with these injuries. Injury is the leading cause of years of potential life lost before age 65 and the leading cause of death for people 1 through 44 years of age. From ages 1-34, injuries cause more deaths than all diseases combined. As you are aware, motor vehicle crashes are the leading cause of death and injury among young people in this country.

To reach our goal, Center staff conduct research to develop and evaluate strategies to prevent and control injuries: conduct surveillance to monitor national trends in deaths, disability and costs associated with injury; and help states and localities develop and implement effective injury control programs. In carrying out these functions, we collaborate with other Centers at CDC, other Public Health Service Agencies, the National Highway Traffic Safety

Administration, the Consumer Product Safety Commission, other federal departments and agencies, state and local agencies, and private and voluntary organizations.

We are especially concerned about the magnitude of death and injury caused by automobiles and motorcycles since traffic fatalities are responsible for a full one-third of all injury deaths. We are using scientific principles and methods to test and evaluate what works to prevent and control injuries. In this country, we have made significant progress in reducing motor vehicle fatalities. This progress has resulted from a comprehensive approach to the problem and can be largely attributed to reductions in drinking and driving, to safer cars and roadways, and to better occupant protection -- particularly dramatic increases in safety belt use. Safety belts are widely recognized as effective in reducing fatalities. Use has increased from 11 percent in 1982 to 66 percent in 1993. This increase in safety belt use is attributed to mandatory seatbelt laws, which now exist in 44 states and D.C. Safety belt use laws have saved 30,000 lives in the past ten years. But we still need to do more to increase vehicle occupant protection so we can prevent head injuries and further reduce traffic fatalities. At the same time, we must apply similar occupant protection strategies to reduce head injuries and fatalities among motorcyclists.

I will focus my remarks today on the public health consequences of motorcycle injuries -- the deaths and serious injuries which occur, and the costs associated with these profound, long-term, and debilitating injuries. I will also tell you how motorcycle helmets can prevent these injuries and discuss recent studies on the effectiveness of methods to increase helmet use.

I am encouraged by what I hear is happening from those on the frontline of injury control -- the trauma surgeons and emergency department clinicians. These are the individuals who battle with the tragic consequences of a motorcycle-related injury or death every day. In conversations with these physicians, they tell me how the mandatory motorcycle helmet laws are really making a difference -- they are seeing a reduction in motorcycle-related injuries, and when there are injuries, they are less severe. This evidence is substantiated, as you will hear later on, with data -- demonstrating that we are on the right road and that we should not do anything to impede our progress.

The Public Health Impact of Motorcycle-related Injuries

Motorcycle-related deaths and injuries are not a minor problem. In 1992, there were 2,394 deaths from motorcycle crashes, about one every four hours. Most of these deaths occur among young people between the ages of 18-24, resulting in the loss of many years of productive life. Like many other injuries, males are at higher risk than females. For motorcycle crashes, the death rate is 10 times higher for males than for females. Among 15-34 year olds, one out of every 10 traffic fatalities involves a motorcycle driver or passenger. If you consider the rate of death per registered vehicle, motorcyclists have four times the fatality rate of car occupants. Similarly, per mile traveled, a motorcyclist is roughly 20 times more likely to die in a crash than is an automobile occupant.

Head injury is the leading cause of death in motorcycle crashes. To determine what proportion of motorcycle deaths are associated with head injury, CDC reviewed U.S. death

certificate data from 1979-1986. We found that head injury was involved in 53 percent of motorcycle-related deaths. Given this estimate, of the 2,394 motorcycle deaths in 1992, approximately 1,296 were from head injury. More than 82 percent of the deaths associated with head injury in motorcycle crashes were among persons 15-34 years of age.

Deaths, however, are only the tip of the iceberg. For every death, at least 30 motorcycle-related injuries are reported to police. Based on data from the National Highway Traffic Safety Administration (NHTSA), there were 38,000 medically attended head injuries from motorcycle crashes in 1992. Twelve thousand of these head injuries were admitted to a hospital for treatment. Among those who survive, head injuries can produce persistent functional disability and psychological impairment. In a CDC-funded study, approximately 28 percent of persons hospitalized at a major trauma center, as a result of a motorcycle crash, had a severe head injury which resulted in severe disability or permanent vegetative state on discharge from the hospital. Head injuries can have a profound impact on the individuals and their families.

Helmet Effectiveness

As early as the 1940's researchers documented the benefits of wearing a motorcycle helmet. Evidence from this country and others around the world have shown conclusively that motorcycle helmets are effective in reducing the likelihood and severity of head injuries in motorcycle crashes. Based on data from NHTSA's Fatal Accident Reporting System, on average, helmets are estimated to be 29 percent effective in reducing all fatalities in

motorcycle crashes. More importantly, it is estimated that of those motorcycle fatalities due to head injuries, two-thirds could be prevented by using helmets. From 1984 through 1992, it is estimated that helmets saved the lives of more than 5,832 motorcyclists. If all motorcycle operators and passengers had worn helmets during those years, it is estimated that approximately 5,920 additional lives would have been saved.

A 1991 GAO report concluded that available studies, comparing fatality rates between helmeted and nonhelmeted motorcycle crash victims, were consistent in reporting a clear safety benefit from helmet use. The report states that "helmet use prevents deaths and reduces injury among motorcycle crash victims." Recent studies continue to substantiate these claims. For example, researchers funded by CDC used linked data from the Fatal Accident Reporting System and death certificates to examine the nature of injuries sustained by California motorcyclists fatally injured during 1987 and 1988. The study reported that 42 percent of the motorcyclists sustained head injuries, and head injury was the most common fatal injury. The factor most significantly associated with head injury was the absence of a helmet.

Costs Associated with Motorcycle Injuries

It is clear that helmets provide a benefit to the individual and to society by saving lives and reducing injuries. The failure to wear helmets, in turn, has a significant impact on health care costs and is a growing burden on society. In 1988, CDC-funded researchers at Harborview Medical Center conducted an investigation of motorcyclists hospitalized at a

major trauma center and found that the average total direct cost for care per patient was over $25,000. More than 60 percent of these costs were paid by public funds. Almost one quarter of all costs were for rehabilitation and readmission. Head injuries present chronic and ongoing problems that can last a lifetime.

How can helmets affect costs? In a recent population-based assessment of injuries to motorcycle crash victims who were hospitalized, CDC-funded researchers compared helmeted and non-helmeted riders. The total cost for all unhelmeted riders was 66 percent greater than that of helmeted riders ($3.5 million versus $2.0 million), and the average per-patient cost of hospitalization was 35 percent higher for unhelmeted motorcyclists ($17,000 versus $13,000). Other studies have shown that patients who wear helmets have a much smaller likelihood of head injury and of the resulting critical and intensive medical care. They also have shorter stays in the hospital and less frequent need for rehabilitation.

These studies point out that motorcycle injuries are expensive to treat, that much of the costs are borne by public dollars, and that health care costs are considerably lower for helmeted motorcyclists.

Effectiveness of Methods to Increase Helmet Use

CDC supports NHTSA's comprehensive approach of licensing, education, and mandatory use laws to increase helmet use and reduce motorcycle injuries. In states which have mandatory laws, helmet use rates are virtually 100 percent. We are unaware of any evidence that

demonstrates that testing, licensing, or education alone leads to anywhere near the improvement in helmet use that mandatory laws produce. Therefore, we believe the most effective programs are comprehensive and most importantly, must include a mandatory helmet use law.

A recent study conducted by our own researchers at CDC found that states with full helmet-use laws had about half the head injury death rates than states without such laws. This was true whether or not our researchers calculated rates on the basis of population or motorcycle registrations. Let me show you a graphic of the death rates based on motorcycle registrations (See attachment A). There are three lines, one representing states with full laws which means that every motorcyclist has to wear a helmet, another representing states with no laws which means it is voluntary, and a third representing states with partial laws which means that only people of a certain age have to wear a helmet. Note over the eight year period study, that the full law states always had the lowest death rates. Note also that partial laws were not much better than no law at all. Imagine a police officer trying to gauge the age of a motorcyclist speeding by, and it is easy to understand why partial laws are hard to enforce.

Earlier studies also support these findings. In 1991, GAO reported that when universal helmet laws have been in effect, fatality rates have generally been 20 to 40 percent lower than during periods before enactment or after repeal. Recent research from Texas found that the rates of injury crashes declined following the reinstatement of Texas' comprehensive

helmet law. Observed helmet use rose from fewer than half (44 percent) of all riders to 98 percent. They also found that unhelmeted motorcyclists were twice as likely to suffer head injuries and four times as likely to suffer serious head injuries as were motorcyclists with helmets. Other state statistics demonstrate the impact of helmet laws. Louisiana strengthened its law from partial to full use in 1981 and there has been a 44 percent decline in its motorcycle death rate. South Carolina and Wyoming weakened their laws from full to partial use and had increases in motorcycle-related head injury death rates of 184 percent and 73 percent respectively.

I have new information to report on the effects of the mandatory helmet law in California. Unpublished data from CDC-funded researchers at UCLA found that the helmet law enacted in 1992 is having a significant impact in reducing deaths and nonfatal injuries in the state. In a comparison of pre and post-law data, the investigators found that the proportion of motorcycle fatalities declined by 36 percent. Most importantly, they found that the number of fatally injured motorcyclists whose most severe injury was to the head or skull declined by more than one-half after the law. Among those fatally injured, most died of injuries other than head injuries. Motorcyclist deaths declined from 80 per 100,000 registered motorcyclists in 1991 to 55 per 100,000 registrations in 1992. This means that, even after allowing for the steady decline in motorcyclist fatality rates over the past few years in California, about 92 additional lives were saved by the law during its first year.

From this same study, there are interesting findings on nonfatal head injuries to motorcyclists. The specific details of the study are soon to be published, but I can present a summary of some key findings. For example, after enactment of the law in California, there were notable reductions in nonfatal head injuries. There were also notable declines in hospital admissions, emergency room visits and medical treatments for those injured. Prior to the law, one-half of the motorcyclists wore helmets. After the law, on average, over 99 percent of motorcyclists were wearing helmets. The findings in this study show that injuries at all levels declined in the period after enactment of the motorcycle helmet law. It appears from this study that helmets had a positive impact in reducing deaths and ameliorated the severity of nonfatal injuries among motorcyclists in California.

Summary and Conclusion

In summary, motorcyclists are especially vulnerable. They are at great risk for death and long-term disability from their injuries. They need better protection in the event of a crash. As Ted Miller and others have testified, motorcycle injuries are expensive to treat, and much of the cost burden is borne by the public. Studies also show that health care costs are considerably lower for helmeted motorcyclists. One can conclude, especially given rising health care costs in this country, that it is appropriate to focus on these preventable injuries to reduce costs, as well as save lives. We have a practical method with which to do this -- use of a helmet. Helmets are effective in reducing head injuries in motorcycle crashes, in saving lives, and in saving precious health care dollars. Studies conducted by CDC researchers and others show that mandatory helmet use laws are effective methods to increase

helmet use. CDC supports comprehensive programs to reduce injuries to motorcyclists including mandatory helmet use laws.

Thank you, Mr. Chairman. This concludes my testimony. I would be happy to answer any questions you or other members of the Subcommittee may have.

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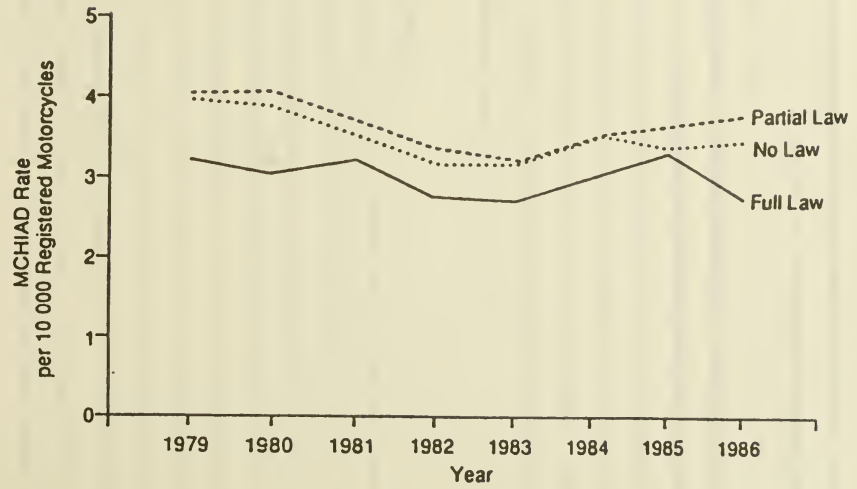
ATTACHMENT A - Motorcycle-related head injury-associated death (MCHIAD) rates, by helmet law and year in the United States from 1979 to 1986.



Tavern League of Wisconsin

Testimony of Robert Sprenger, President of the Tavern League of Wisconsin

March 3, 1994

Good morning Mr. Chairman and members of the Committee. Thank you very much for the opportunity to appear before you today. I would especially like to thank Congressman Petri for all of all his help and assistance.

My name is Robert Sprenger and I am the President of the Tavern League of Wisconsin a trade association of over 4000 members. The Tavern League of Wisconsin represents the interests of the licensed beverage industry in Wisconsin.

Over the past ten years Wisconsin has experienced a tremendous decline in alcohol related crashes and fatalities. The Tavern League of Wisconsin has been instrumental in helping to reduce drinking and driving in Wisconsin. We have 11 local county Tavern League chapters who fund and operate ride service programs (RSP). The programs will pay for a free cab ride home for someone who may have had one too many. The RSPs have been tremendously successful in providing rides to individuals who might have otherwise driven. Ninety-five percent of total program costs go towards providing free rides home.

In addition to operating RSPs, we have also promoted programs to encourage groups to Designate a Driver when they go out. We were also commended by the Governor for helping to make 1992 the safest year on Wisconsin highways since WW II. We have been on the front lines in helping to reduce alcohol related crashes and fatalities in Wisconsin.

When Wisconsin raised its drinking age to 21 in 1986 the state Department of Transportation (DOT) and Department of Health and Social Services (H&SS) were instructed to report to the Legislature the impact raising the drinking age had, if any. The DOT report said alcohol related crashes were down for 19 and 20 year olds and the H&SS report said there was no decline in alcohol consumption for underage drinkers.

In Dunn County, Wisconsin they use an airplane with night vision goggles to search out underage drinking parties. "We are no different than other areas - all counties have drinking problems - some just chose to ignore them," the Sheriff recently commented. In Wisconsin the 21 year old drinking age is a paper law. Unsupervised parties on college campuses, in cornfields and rural areas where it cost $2 for all you can drink are the rule not the exception. Because of the 21 year old drinking age young teenagers find themselves at underage drinking parties with 19 and 20 year old adults.

Twenty-eight other states have passed laws allowing 19 and 20 year olds on the premise of

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taverns or restaurants but they are not allowed to consume alcohol. By passing these laws they do not lose any portion of their federal highway revenue because they comply with a 21 year old drinking age. In Louisiana they passed a 21 year old drinking age law and then passed another bill to remove any penalties for serving alcohol to persons 19 or 20.

When one looks at all the statistics it does not paint the rosy picture that some think it does. In Wisconsin the Legislature has introduced about ten bills to combat the tremendous problems associated with underage drinking. According to University of Wisconsin officials alcohol use by underage drinkers is growing so fast and seriously that police are having a hard time figuring out how to stop it. Parents, teachers, law enforcement, legislators and city officials are starting to realize that 21 is not the panacea it was thought to be and many support a 19 year old drinking age.

What were asking for is a review of the 21 year old drinking age. Adults aged 19 and 20 continue to drink, however, in many circumstances it is in an environment with much younger teenagers. It is odd that our government believes a 19 year old is not responsible enough to legally consume alcohol but that same government gives them the awesome responsibility of flying a multi-million dollar aircraft to defend our country.

The time has come to have an honest debate on the facts surrounding the drinking age instead of ignoring the problem altogether. Legislators in our state want to deal with the problem but cannot because the loss of federal highway revenue looms over them. Proponents of 21 should welcome this review of the drinking age.

Thank you very much and we look forward to working with you on this issue in the future.

Tavern League of Wisconsin

Testimony by Scott Stenger before the House Subcommittee on Surface Transportation requesting a study be commissioned by the University of Wisconsin on the impact of the 21 year old drinking age in Wisconsin.

Thursday, March 3, 1994

Thank you Mr. Chairman and Members of the Committee for the opportunity to appear before you today. My name is Scott Stenger, I am the Governmental Affairs Director for the Tavern League of Wisconsin which is a trade association comprised of over 4000 members who own and operate licensed beverage establishments in Wisconsin.

I appear before you today to address the issue of withholding a percentage of federal highway funds from states who do not comply with a 21 year old drinking age. The United States has the strictest drinking age law in the world. By 1987 all of the states complied with the federal ultimatum to increase the minimum drinking age to 21 or lose a portion of their federal highway dollars. Wisconsin increased its drinking age to 21 in September of 1986. When the Legislature raised the drinking age it also mandated studies by the Department of Health and Social Service (H&SS) and the Department of Transportation (DOT) regarding the impact of the change in the drinking age.

Unlike the results from DOT the findings from H&SS are directly attributed to the increase in the drinking age. There were no extenuating factors which could have influenced the data compiled by H&SS. However, when examining the data compiled by DOT one must also factor in the following statutory changes which most certainly had an impact on their data:

1) Creation of .10 as the blood alcohol level which is grounds for convicting a person of operating a motor vehicle while intoxicated (OWI);

2) Mandatory loss of driver's license after an OWI conviction or for even refusing to take a chemical test intended to measure the driver's blood alcohol level;

3) Mandatory alcohol and other drug abuse assessment for all persons convicted of OWI;

4) Increased financial penalties for drunk driving; and

5) The establishment of a required public information program to inform the public of the consequences of violating Wisconsin's OWI law.

The final 1990 DOT report to the Legislature states that "factors other than the 21 MDA (minimum drinking age) have probably affected the rate of drinking driver accidents."

P.O. Box 170 • Madison, Wisconsin 53701 • 608/251-1133 • FAX 608/251-1303

In its final report to the Legislature in January 1992, the H&SS study on the impact the 21 year old drinking age had concluded that there has been little or no change in drinking patterns among juveniles and young adults since 1988 when the full implementation of the drinking age occurred. The report sighted the following findings:

1) 92.7% of high school students have tried alcohol;

2) There has been no decrease in "binge" drinking by high school students;

3) The data has concluded that there has been a statistically significant decrease in drinking and driving among high school students;

4) Data on the alcohol and drug use patterns of all young person 18-21 who were admitted to the Department of Corrections field supervision or to prison indicate that their reported incidence of alcohol and drug abuse increased between 1986 and 1990.

5) The percentage of young prison admissions who exhibited alcohol abuse problems was higher in 1990 than in any other year in the mid to late 1980's. Prison admission data showed a 9% increase in the incidence of young persons who exhibited alcohol abuse problems.

6) Between 1984 and 1990, there was a 77% increase in the percentage of young field supervision caseload admissions who exhibited frequent alcohol abuse problems.

7) The increase in the drinking age does not appear to have deterred drinking among young persons, but rather, have primarily resulted in a dramatic increase in arrests for liquor law violations. Compared to 1984, there has been an increase of 522% in liquor law violations in Wisconsin.

8) Nearly three-fourths of the young adults aged 18 to 20 who lost their drinking privileges currently drink. The incidence of current drinking is nearly identical to that of 1986 when the drinking age was 19.

In addition to the report by H&SS a recent study conducted by the University of South Dakota's Department of Psychology found that despite societal efforts to curb drinking by adults aged 18-20 the opposite effect has actually occurred. This theory is referred to as the reactance theory which concludes that drinking age law changes to 21 cause underage college students to drink more alcohol because of the belief that their behavioral freedom is being reduced. This theory would help explain why other countries with a lower drinking age or no drinking age at all do not experience the same rate of problems associated with alcohol. This is also referred to as the "forbidden fruit" theory.

Like the rest of the country, Wisconsin has seen a tremendous decline in alcohol related crashes over the past ten years and the Tavern League of Wisconsin has been instrumental in helping to contribute to a 60% decline in alcohol related crashes and over 50% decline in alcohol related fatalities since 1979.

It is undeniable that alcohol related crashes, in Wisconsin, involving adults aged 19 and 20 have declined dramatically since 1986. It is also undeniable that legal drinking aged adults have witnessed a dramatic decline in alcohol related crashes since 1986. The question is why has there been such a dramatic decline for **all age groups**? Many proponents of a 21 year old drinking age will sight 21 as **the** reason for the decline in alcohol related crashes. The statistics contradict that assertion, by clearly indicating that **all age groups** have experienced a dramatic decline. The 21 year old drinking age has absolutely no impact on adults aged 21 and over and yet adults 21-25 experienced nearly a 50% decline in alcohol related crashes from 1983 to 1992. The same factors which caused legal aged adults 21-25 to experience nearly a 50% decline in crashes also has resulted in declines for 19 and 20 year old adults. As illustrated by the statistics from H&SS, there has been no change in the drinking habits of 19 and 20 year old adults, therefore, other factors have influenced their, along with legal aged adults, decision not to drink and drive.

In addition to legislators, many law enforcement officials, parents, teachers, university officials, apartment owners, The Wisconsin Restaurant Association, Bowling Proprietors of Wisconsin, the student association United Council, Wisconsin Association of Amusement and Music Operators, the Tavern Hosts, and Students Against 21 all support efforts to have a 19 year old drinking age.

The major obstacle facing Wisconsin is the federal law to withhold highway revenue from state's which do not have a 21 year old drinking age. We come here today to ask, what may seem politically incorrect in this time of political correctness and that is to review the overall impact the 21 year old drinking age has had in Wisconsin. Like prohibition, the 21 year old drinking age is a failed experiment. We strongly urge the committee to adopt language which would either grant Wisconsin a federal waiver from losing highway funds or commission an independent study of the effects the 21 year old drinking age has had in Wisconsin. Proponents of a 21 year old drinking age should not be afraid to let 21 stand on its own merits. If they are correct, it should not take a threat from the federal government to keep the law on the books. This is a state's rights issue just as is the use of helmets. If you want a 21 year old nationwide drinking age pass a law stating that.

Most everyone involved in the debate in reducing alcohol related crashes, including DOT, concede that other factors have been instrumental in reducing alcohol related crashes for adults

aged 19 and 20. Tougher drunk driving laws and increased fines, increased public awareness, education and a societal change in attitudes about drinking and driving have all contributed to lower alcohol related crashes and fatalities. If, however, 21 was the only reason for the decline in alcohol related crashes for 19 and 20 year olds we should be talking today about increasing the drinking age even higher.

We would like to request the committee to require a study conducted by the University of Wisconsin using a portion of the $2.1 million annual apportioned amount of federal grant money Wisconsin has qualified for, to focus on the impact the 21 year old drinking age has had in Wisconsin taking into account the following issues;

1. Number and frequency of underage alcohol parties law enforcement discover and the age of those in attendance at the underage party.

2. The attitude of law enforcement on the 21 year old drinking age.

3. Survey adults aged 19 and 20 both those in college and not in college, to determine their alcohol consumption patterns.

4. Survey of persons 14 to 18 to determine their access to alcohol, consumption patterns and contact with adults aged 19 and 20.

5. Alcohol policies at universities in Wisconsin and enforcement of underage drinking parties.

6. Attitudes towards drinking and driving and use of a designated driver for persons 19 and 20.

Thank you very much for taking the time to listen to our concerns and we hope to be able to work with you in putting forth a comprehensive study in Wisconsin on the impact of the 21 year old drinking. I would especially like to thank Congressman Tom Petri for the tremendous help he has provided to us.

RUSSELL D. FEINGOLD
WISCONSIN

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December 8, 1993

Scott Stenger
Tavern League of Wisconsin
PO Box 170
Madison, WI 53701

Dear Scott,

Just a brief note to thank you for your recent letter concerning the drinking age in Wisconsin. It was good hearing from you.

I sympathize with your feelings about the age of majority. As you know, I was an outspoken critic of the 21 year old drinking age as a member of the Wisconsin State Senate and supported lowering it back to 18 years of age.

I would appreciate your keeping me informed of the progress that is made on this issue, particularly with regard to federal highway funds, as you work with the House Public Works and Transportation Committee. To that end, I look forward to hearing from you in the near future.

Thanks again for writing.

Sincerely,

Russell D. Feingold
United States Senator

SCOTT KLUG
SECOND DISTRICT, WISCONSIN

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CO-CHAIR
REPUBLICAN TASK FORCE ON EDUCATION

Congress of the United States
House of Representatives
Washington, DC 20515-4902

January 24, 1994

RECEIVED FEB - 7 1994

Mr. Scott Stenger
Governmental Affairs Director
Tavern League of Wisconsin
Post Office Box [illegible]
Madison, Wisconsin 53701

Dear Mr. Stenger:

Thanks for your letter expressing support for efforts to eliminate the federal provisions that deny transportation funds to states that lower their drinking age.

Like you, I believe that a state's minimum drinking age can and should be legislated at the state level. Several years ago our state was coerced into raising its drinking age by the threatened loss of many millions of dollars in federal highway funds. This was at a time when we were already receiving less than 75 cents on every highway tax dollar that we were sending to Washington. I regret that Wisconsin was forced to adopt a law which our own legislature was perfectly capable of passing if it, and the majority of the people in Wisconsin, had so wished. By carbon copy, I have sent your suggestions to the Administration.

Governments can never legislate personal responsibility, that job is left to families, churches, and schools. I believe ideas about establishing strong designated driver programs in Wisconsin are good. Stricter enforcement of drunk driving laws has had a positive effect. The Wisconsin Department of Transportation reports a decrease in those tested with a blood alcohol content of .10 or more. I support the continuation of these policies and believe we must continue to strictly enforce anti-drunk driving laws across the board.

In late February and most of March, the House Public Works and Transportation Committee will be holding hearings

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Mr. Scott Stenger
Page 2

on amending the Intermodal Surface Transportation Efficiency Act (PL 102-240). There is talk that some effort may be made to eliminate penalties against state's for various transportation compliance categories. Your comments will be especially helpful should the committee decide to take up the issue of drinking age limits.

Again, thanks for your thoughts. Please keep in touch.

Sincerely,

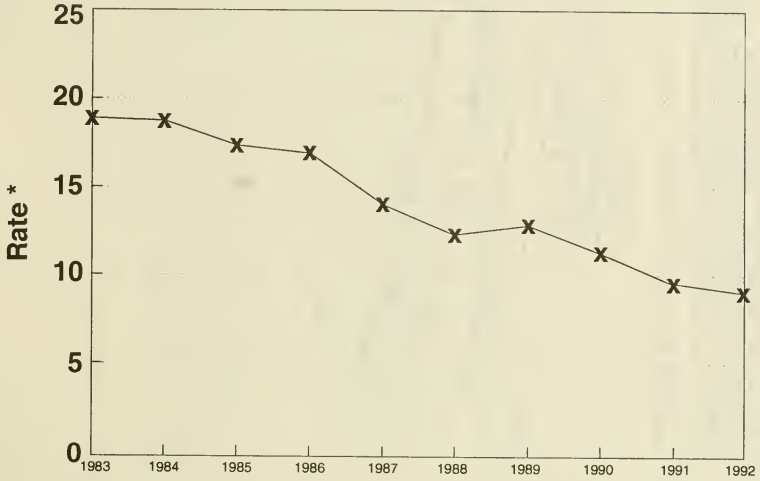
Scott Klug
Member of Congress

SK:jc

I'm with you Scott
As I've told you before DC
Should not set drinking limits; speed laws
etc.

21 year old Drinking Drivers Involved in Crashes
52% Decline

52% ⇩

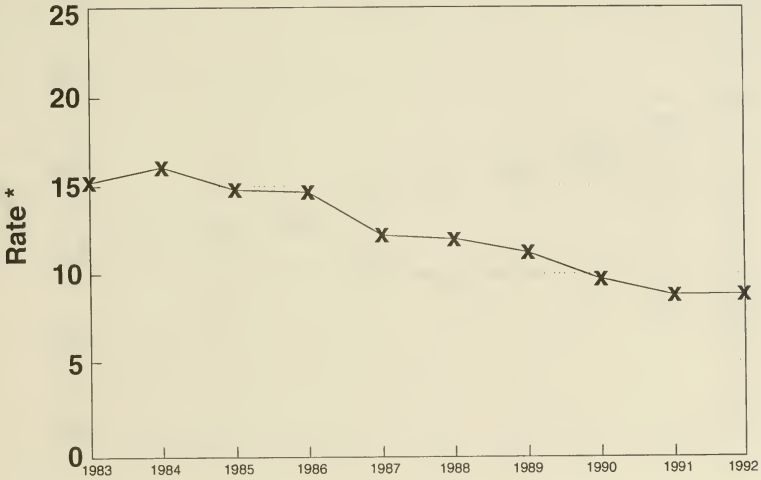


* Per thousand licensed drivers

Source: WI DOT

22 year olds

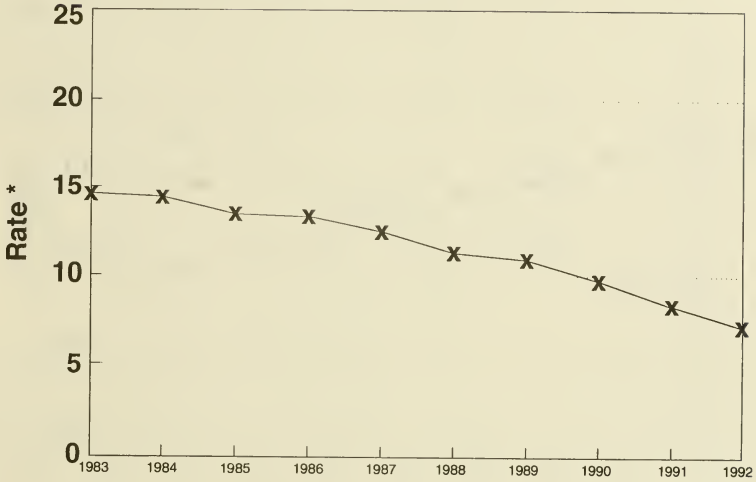
42%⇩



* Per thousand licensed drivers

23 year olds

50%⇩



* Per thousand licensed drivers

24 year olds

43%⇩

* Per thousand licensed drivers

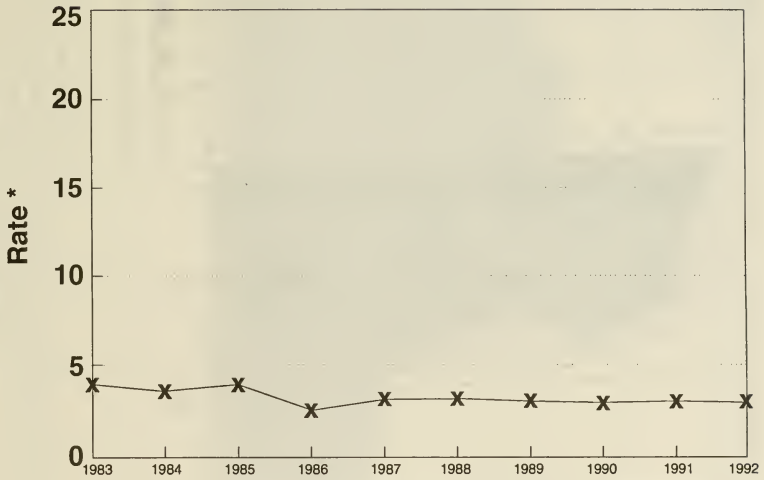
25 year olds

43%⇩

* Per thousand licensed drivers

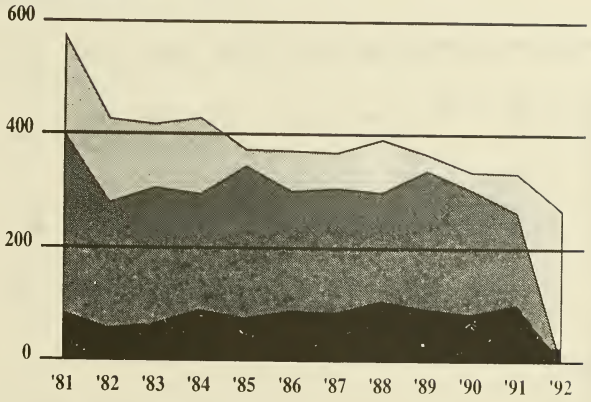
40 year olds

24%⇩



* Per thousand licensed drivers

ALCOHOL-RELATED DEATHS IN WISCONSIN



DEFINITIONS

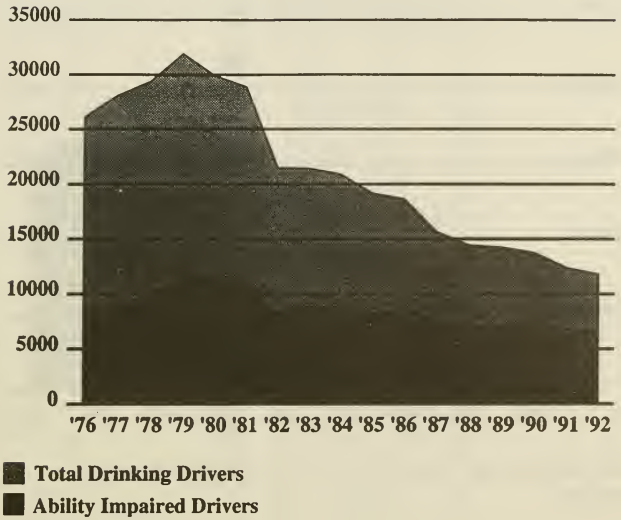
Motor vehicle - Deaths where as least one driver, pedestrian or bicyclist involved in the crash had been drinking alcohol

Boating/Snowmobile - Death where at least one driver of a snowmobile or boat had been drinking alcohol

Alcohol Disease - Due to alcohol poisoning and dependence deaths

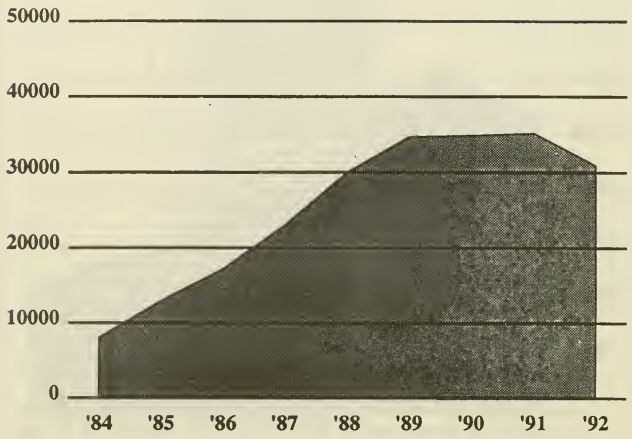
Other Drugs - Due to drug poisoning and dependence deaths

DRINKING DRIVERS IN REPORTABLE CRASHES 1976-1992



COUNTING: Drinking Drivers
NOTE: Ability Impaired indicates that the investigating officer perceives the driver as being impaired. A driver could have an alcohol concentration (AC) under 0.10 and still be ability impaired.
SOURCE: DOT-DMV Accident Data Base

UNDERAGE ALCOHOL CONSUMPTION CONVICTIONS



SOURCE: DOT-DMV Bureau of Driver Services Annual Report 1984-1992

Leean calls for drinking age compromise

By STEVEN WALTERS
Sentinel Madison Bureau

Madison — A legislative leader Tuesday called for a compromise that lowers Wisconsin's 21-year-old drinking age, saying widespread beer parties are attracting young teenagers.

Sen. Joseph Leean (R-Waupaca) said the current law turns 18-, 19- and 20-year-olds into social "outcasts" and forces them to hold beer parties that "sweep up" teens as young as 14 and 15.

"I hate our current policy," said Leean, co-chairman of the Legislature's Joint Finance Committee. "It's bad."

Under current law, Leean said in an interview, 18- to 20-year-olds "have got no place to go," so they organize rural beer parties, solicit younger teens, charge them $3 for all they can drink, and don't go home until the beer kegs are empty.

Leean said he supports a compromise to allow those 19 and older to drink legally in restaurants and taverns, but not to buy any carry-out alcohol.

Leean said he offered to sponsor that compromise in the mid-1980s, when the Legislature raised the drinking age to 21.

At the time, that compromise was unacceptable to leaders of the Tavern League, whose leaders recently suggested the same compromise, Leean said

"It's the right idea, the right approach," Leean said of the plan to let 19- and 20-year-olds drink only in businesses with liquor licenses.

Leean said he did not believe the compromise would pass the Legislature this fall, however, unless a way is found to avoid the loss of federal highway funds.

If Wisconsin lowers the 21-year-old drinking age, Leean said, the state will lose $31.5 million in federal highway funds in the next two years.

Leean said he would vote to lower the drinking age, if there was a chance the federal government will now not penalize Wisconsin for doing so.

An Assembly committee will hold a public hearing Thursday on a bill that would lower the drinking age.

Also Tuesday, Leean testified on behalf of a bill that would require judges jail anyone who repeatedly illegally sells alcohol to anyone younger than 21.

Judges can only fine repeat violators — and one Ripon man has been convicted of the crime about 12 times, Leean said.

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AMERY
Free Press

MAY 18 1993

Cars, beer seized from students

Ten kegs of beer and two cars were seized by officers from the Polk county sheriff's department at a post-baccalaureate party for which tickets had apparently been sold in Amery over a 2-3 month period.

Polk county Sheriff Craig Benware issued a warning Monday that urged parents and teenagers to exercise caution and good sense in celebrating graduation and other springtime events.

On Sunday evening, May 9, five county deputies converged on a remote area in the town of Apple River and broke up a beer party apparently organized and attended by Amery students.

"There was a whole bunch of running when they got there," Benware said. Numerous citations were issued to juveniles for alcohol consumption, and two vehicles abandoned at the scene were towed to the law enforcement center in Balsam Lake, where they were later claimed by the owners, he said.

According to the sheriff, investigators believe they know who supplied the ten kegs of beer for the party and where the alcohol was purchased. Charges will be filed against adults who supplied the beer, Benware said.

"Tickets" to the May 5 drinking event fraudulently claimed the party was hosted by the Amery Police Department. Printed on bright blue paper, the tickets were emblazoned with a badge insignia and were sold for $3.

Benware said he is surprised that no parents or other adults in contact with teenagers spotted the tickets before the event and notified authorities.

A post-baccalaureate drinking party is almost a tradition in Amery, but parties are a problem in other communities as well, according to the sheriff.

Benware emphasized that his department's role in breaking up or preventing juvenile drinking is to enforce the law, keep people safe and deter others from becoming involved in similar incidents.

"These parties are continuous, and around graduation they tend to be more open. They all impact in a pretty negative way if you get smooked up and bump into a tree," he said. "Our fear, of course, is that we're going to have to notify some parent that his kid is dead."

Benware said he believes most teenagers are law abiding and sensible, and he urged students and parents to consider the possible negative outcomes of drinking and driving before deciding to attend a party where alcohol is the main event.

"We've got some exceptionally good kids," he said. "But it doesn't make a difference if you're a regular drinker or not if you get in an accident, the tragedy is the same."

'Party patrol' nabs minors, west side bar

The Green Bay Police "party patrol" broke up an underage drinking party early this morning and arrested seven for underage drinking Monday night.

An anonymous tip sent the patrol to 1493 Day St. just after midnight today, Lt. Gary Smith said. Officers arrested six teen-agers for underage drinking and the host of the party, 23, for procuring alcohol for minors.

Monday night, officers arrested seven minors for loitering or underage drinking at Penrod's Philling Station, 2475 W. Mason St. Officers cited the bar for selling alcohol to minors and for allowing underage people to loiter.

That was the second night in a row officers found underage drinkers at Penrod's, Smith said. The bar's license comes up for renewal at the end of the month, he

988

Cops on underage drinking: We can't win

■ The county police are criticized again after the death of a party-goer

By Anne Klemm
Press-Gazette

Underage drinking parties put police in a no-win situation, local officers say.

If police show up at a party, they get blamed if the kids flee and something disastrous happens.

And if they don't show up, they get blamed, too — especially if something disastrous happens when the party breaks up on its own, Brown County sheriff's Capt. Frank Tomcheck said Wednesday.

As it is, Green Bay and Brown County police say they have to respond whenever they get complaints, including complaints about underage drinking parties.

Police can't be held accountable for what underage drinkers decide to do as a result, Tomcheck said. "I think the bottom line is that you have to be responsible for your own actions."

He made the remarks following criticism of police in the death of Jason Lisle, 20, of 2006 Van Deuren Road.

Listle ran from two Brown County officers who went to the scene of an underage beer party in a town of Glenmore woods early Sunday. Listle drowned in a a quarry not fur from the party scene.

Searchers found his body Tuesday. State laboratories will determine his blood alcohol level in a week or two, Brown County Coroner Genie Williams said today.

Some of Listle's friends and relatives claimed he'd be alive today if police hadn't shown up, sheriff's Lt. Robert Demro said.

Similar complaints surfaced in April 1991, when three youths died in a car crash on U.S. 41-141 while fleeing a po-

Please see Parties/A-2

Tomcheck
Defends cops' actions

Taylor
Says police to avert trag

Parties

lice raid on a beer party in the town of Suamico.

Tomcheck said the department tries to have enough officers to handle teen drinking party calls and to ensure the kids' and officers' safety.

"You have to remember, we're out there to enforce the laws. We took the oath to enforce the law, including state statutes on underage drinking," Tomcheck said.

Green Bay police also try to prevent tragedies from happening, Deputy Chief James Taylor said.

"The officers try to be as careful as they can to try to prevent someone from running away, maybe getting into a car and getting into a crash or ending up with the tragedy we had over the weekend," Taylor said.

Police safety measures may include posting officers at the back and sides of a house when responding to a house party call, Taylor said.

That way, anyone trying to run is caught immediately, Taylor said.

Police in squad cars can communicate by written electronic messages to prevent teens from monitoring their calls on police scanners, Taylor said.

Both Taylor and Tomcheck said their departments don't have specific written policies on breaking up underage drinking parties.

At a typical underage drinking party call, officers check the partygoers' ages, determine whether they've been drinking and decide whom to cite, Tomcheck said.

Those being disorderly can be taken to jail, and parents of minors are called to arrange a safe ride home, Tomcheck said.

He said it's important to remember that police crack down on underage drinking parties for everyone's safety.

"I hate going to these fatalities and having to tell people their loved ones are dead," he said.

"I hate going to these fatalities and having to tell people their loved ones are dead."

— Brown County sheriff's Capt. Frank Tomcheck

989

Tied police found dead

Deputies raided party near quarry

By KATHLEEN A. GALLAGHER
Sentinel correspondent

Town of Glenmore — A Green Bay man missing since Saturday night after fleeing from sheriff's deputies raiding an outdoor beer party was found dead in a water-filled quarry Tuesday, authorities said.

Jason Listle, 20, was found about 5:10 p.m. in the quarry southeast of Green Bay.

Brown County Sheriff's Lt. Robert Demro said it was evident Listle plunged into the abandoned quarry near Glenmore Road while running through woods late at night.

The partygoers scattered when Sheriff's Deputy Tom Bennie and Police Officer Neil Brown approached on a nearby road. Officials stayed at the party site for several hours early Sunday, waiting for partygoers to return for their vehicles.

Sheriff's Lt. Keith Carlson said authorities broke up a party near the quarry Saturday night. Sunday, the department received a call complaining of another possible party at the site, but when deputies arrived they found family and friends searching for Listle, Carlson said.

Divers searched the abandoned quarry Monday but were thwarted by poor underwater visibility, Carlson said.

"On Tuesday, they were dragging the quarry with dragging hooks, and that's how they recovered the body," Carlson said.

Shawn Hyde, who said he was a stepcousin of Listle, was near the quarry Tuesday with other family and friends when the body was found. "They pulled his parents to the side and told them," Hyde said. "They were pretty hysterical."

Family members huddled in a nearby field declined to talk to a reporter Tuesday. An ambulance left the area about 7 p.m. as a crowd of about 30 people, many of them visibly shaken, watched.

Some of several dozen volunteer searchers included members of motorcycle clubs notified by the Listle family. Among those who searched for Listle for days was his mother, Pam Bongle.

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The Denmark Press

JAN 19 1987

Underaged drinking is an issue in the area

Recent reports of Denmark High School students being caught with or after drinking alcoholic beverages is disturbing, to say the least.

All the stories people have heard may or may not be true but the fact of the matter is, youths were caught and they suffered the consequences.

But there has to be a way to keep underage drinking in check.

Who is to blame for the recent problems? Is it the school district for planning activities to give youths a place to go, or is it the parents for being naive as to their child actually drinking alcohol?

Whatever the answer is, we will never come to a satisfactory solution until we find some way to curb under-age drinking and that is when both parents and school district personnel work together.

District administrator David Ewald hit the nail on the head at a recent meeting of the Denmark Board of Education when he said "at some point, you start wondering where does the school district's responsibility end and the parents responsibility begin?"

It is time for parents and school personnel to work together – not having parents feel a particular student is being picked on.

The use of alcohol and the problems associated with it may be the desperate cry for help of the teenager. Let's not ignore the cry for help but address the issue.

- Jeff Kralovetz, Editor
The Denmark Press

Clipping Service Division
WAUSAU
Daily Herald
MAR 2 5 1993

Thursday, March 25, 1993 A Gannett Newspaper 35 cents

Merrill man clings to life nearly two weeks after party

Friends didn't know how much he drank

By Michele Martinez
Wausau Daily Herald

MERRILL — As Saturday night was turning to Sunday morning on the weekend of March 13, about 30 people gathered around a bonfire in the middle of the woods, drinking, talking and laughing.

Galen Graap, 18, 1002 Champaigne St., Merrill, was in the middle of it, talking to a group of people standing near a pickup truck.

People at the party on Loop Road in the town of Birch say nothing Graap did or said indicated anything was different. There were no signs that Graap would soon be struggling for his life.

The Merrill Senior High School senior went into cardiac arrest at the party and remains on a life-support system at Wausau Hospital, where he was taken after his condition was stabilized at Good Samaritan Health Center in Merrill, police said. The family has requested that the hospital release no information about Graap's condition and did not want to speak to a reporter.

Galen Graap
92 yearbook photo

Detective Jerry Schroeder of the Lincoln County Sheriff's Department, which continues to investigate the incident, said a charge of furnishing alcohol to a minor could be brought against the person or people who purchased the alcohol. There also

Please turn to DRINKING/2A

■ Non-alcoholic events/2A

It's tough to crack down on underage drinking

By Michele Martinez
Wausau Daily Herald

MERRILL — All too often, adolescence and alcohol become entwined in a dangerous liaison.

Lincoln County law enforcement officers know teenagers drink. But it's difficult for them to pinpoint where and how often illegal drinking occurs.

Ned Seubert, Merrill's juvenile officer, estimates about 80 people younger than 18 are arrested each year in the city for using alcohol.

But most underage drinking parties are held in rural areas that are difficult to get to without four-wheel drive or all-terrain vehicles.

Sometimes a parent will find out about a party and make an anonymous call to the Sheriff's Department. Or someone will call and say a certain area is a big party spot.

Investigations often go nowhere because the teens will not give officers information, said Detective Mike Ratkovich, juvenile officer for the Lincoln County Sheriff's Department.

"Some of them already have a severe problem with alcohol," he explained. "Or it's peer pressure. These are their friends or they are afraid they won't be invited back."

Physical and sexual assault often goes hand in hand with underage drinking, Ratkovich said.

He said 18- or 19-year-old men will bring 13- or 14-year-old girls to drinking parties with the intent of getting the girls drunk and sexually assaulting them.

Last year, there were 64 reports of juveniles being sexually assaulted in Lincoln County. While he could not give the specific number of sexual assaults that happened to 13- to 16-year-old girls, Ratkovich said alcohol was involved about 75 percent of the time.

Lincoln County Circuit Judge J. Michael Nolan said most juvenile violations of county and city ordinances are for underage drinking. Many kids are repeat offenders.

Fines for consuming alcohol as a juvenile range from $30 for the first offense to $100 for the third offense. For people aged 18 to 20, fines range between $100 to $500 and driver's licenses can be suspended or revoked.

Those may sound like stiff penalties, Nolan said, but many offenders don't care what the fines are and will continue to drink.

Adults found guilty of drunken driving are required to enter an alcohol assessment program. There is no requirement for people younger than 21.

Seubert said a teen drinker can be referred to an assessment program. But, he said, "I have not seen a kid come out of an alcohol assessment where it benefited him."

Drinking

From Page 1A

could be other charges, but he said it is too early in the investigation to say what those could be.

Acquaintances of Graap, Allen Woller and Todd "Odie" Boyd, said they were unaware of the severity of the situation before Graap passed out.

"He seemed all right. He slurred his words, but he always does that," Woller, 23, said. "He and his brother always seem to be the ones who are always having a really good time, to put it mildly"

"He didn't seem too bad," Boyd, 20, said. "He was standing by a truck talking to people. People saw him fall and they helped him up and put him on the car seat."

Graap passed out on an abandoned car seat and the party continued around him.

After a while, Boyd, N2288 Highway 51, approached Graap, who was turned away from the fire.

"He was facing away from the fire and I figured he was cold so I went over there," Boyd said. "He had vomit on his face and he was passed out."

Woller, 1701 E. First St., approached the group that had gathered around Graap and saw that Graap was choking and blue in the face. As others were trying to clear Graap's throat, Woller said he picked him up and carried him to Woller's van.

While Woller drove the half hour from Loop Road to Good Samaritan Health Center, Boyd and another person performed cardiopulmonary resuscitation on Graap in the back of the von. Woller and Boyd both said Graap's heart was not beating while in the van or when they got to the hospital.

Neither Boyd nor Woller were sure how much alcohol Graap had consumed.

"I heard lots of stuff, but all I saw him drinking was beer," Boyd said.

Woller said he had only been ot the party about a half hour before driving Groop to the hospital. He said he didn't really know much about Graap, just that he saw him at various parties

"He always seems to be at parties drinking a lot," Woller said.

More information

For more information about Merrill Forward Together, or for information on organizing nonalcoholic events for those age 18 to 21, write: Merrill Forward Together, P.O. Box 793, Merrill, Wis. 54452.

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...mpany Service Division
MENOMONEE
Falls News
JUN 9 1993

Eye in the Sky good proposal

Editorial

Is a recent $20,000 federal grant received by ne Dunn County Sheriff's Department to search ut underage drinking at outdoor parties via a igh wing airplane and night vision scopes a rise use of funds?

We think so.

Statistics show the total number of alcohol-elated crashes is disportionately higher in Dunn County than ther areas. A main oncern of the heriff's Department vhen it comes to underage drinking is that ouths drive to rural, out-of-the-way locations, vhere they are hard to spot. And if they drive o the spot, that means they drive home — fter consuming alcohol. During the summer nd fall of 1992, Sheriff Robert Zebro estimated iis department was called to at least 60 parties vith underage drinking — some college stu-lents, others younger.

The airplane and night vision scopes — called he Eye in the Sky program — will more effec-ively help the Sheriff's Department cover the ntire county. A person in the air can spot hings more easily than someone on the ground. And when only one or two officers are on duty or the department, that makes it difficult to next to impossible for him to cover a large area.

The use of airplanes in law enforcement is nothing new, as wildlife poachers are now aught that way. This program will just have a different target group — underage drinkers.

Although we still believe education should be he main focus when it comes to dealing with underage drinking, this innovative program might also discourage drinking by juveniles and the sale of alcohol to juveniles by liquor stores.

It's definitely worth a try.

JUN 4 1993

21 drinking age is a paper law

A recent study shows that as far as college students are concerned, the 21-year-old drinking age exists on paper only.

It's a safe bet that the same is true of young people who aren't in college, but this survey focused on the drinking hat of students at 78 campuses across the nation between 1989 ar 1991.

The study found that 48 percent of students under age 21 s they had at least one binge drinking incident during the two weeks before the survey. Alcohol was by far the drug of cho among the students, with 85 percent of them saying they had used it in the last year, compared with 26 percent who used next favorite drug, marijuana.

On average, each student younger than 21 consumed about five drinks per week. Eighty-six percent of college students under 21 drank alcohol during the year, even though sales of alcohol to people under 21 are supposed to be illegal through the country.

A big surprise? Hardly. Opponents of the 21-year-old drink age have said all along that the law is a sham. In Stevens P the number of arrests for underage drinking runs high, due the concentration of university students here for nine month the year.

A few years back, huge house parties were the fad here. Police cracked down on them, and either the house parties a smaller or the partiers have learned to keep it down, becaus there weren't many big busts this year. Plenty of arrests are made here for underage drinking, so it's not like police ignor the problem.

As part of a strategy to reduce alcohol-related traffic fatalities, the 21-year-old law surely has helped. But to what degree is uncertain. It might be that societal pressures have played as big a role. It's sinking in to a lot of people that driving drunk is no longer acceptable.

On another level, the college drinking survey shows that young adults have simply decided to ignore the law. A big majority of them will take a drink when they darn well plea and apparently access is no problem.

The survey also shows that students with low grades are likely to drink more than those on the honor roll. Predictabl also documents a correlation between drinking and fights, vandalism and run-ins with authorities.

Based on these statistics, what's the purpose of the law? V ve to ask the federal government, which pretty much forc the states to adopt the law.

"Just because they bought the stuff doesn't mean they made him drink it."

—Sophomore Jim Busterud

Students: Teen's death won't stem minors' drinking

Many say it won't happen to them

By Michele Martinez
Wausau Daily Herald

MERRILL — Students at Merrill Senior High School don't think the alcohol-related death of a fellow student will change underage drinking habits.

Galen Graap, 18, died Saturday after being on a life-support system for a month following an underage drinking party. Graap went into cardiac arrest after drinking a large amount of alcohol at a March 13 party on Loop Road in the town of Birch, according to police reports.

Monica Schelbert

"It's unfortunate that this happened. Our sympathy goes out to

Sophomore Danielle Kunza said her mom has given her a lecture about underage drinking, but she thinks Graap's was a case of extremes and won't stop teens from drinking. "Not everybody's going to drink that much," she said.

Gabriel Graap, 21, Galen's brother, and Daniel Ley, 19, Wausau, have both been issued citations for furnishing alcohol to an underage person and Ley was also charged with procuring alcohol. Each citation carries a $333 fine that the men must pay before May 10 or appear in court.

Sophomore Jim Busterud doesn't think the sheriff's department should have issued those citations.

"Just because they bought the stuff doesn't mean they made him drink it," he said.

Busterud said he thinks the people who were close to Graap will probably be affected the

...n County squad car was ... would not have prevented the fatal ...
...pond to an initial call at ... dent, he said.

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Suamico 4x4 bash criticized

Minors drank, official says

By Kathleen McGillis
Press-Gazette

Reacting to an alcohol-related traffic crash that killed two teen-agers Sunday, Suamico's town chairman blasted parents and organizers of a four-wheelers' race and picnic.

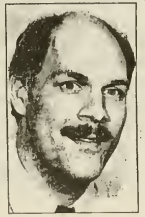
Town Chairman Gary Rozmarynoski, a teacher and coach at Bay Port High School, said students told him they were served beer at the Saturday afternoon event.

A subsequent beer party at a Suamico home has been linked to the crash that killed two young men early Sunday on U.S. 41-141.

Rozmarynoski also ripped parents for shirking their responsibilities in knowing where their teen-agers were spending their leisure time.

Representatives of the Suamico Brush Eaters 4x4 Club said at Wednesday's Town Board meeting that they didn't know whether they had a licensed bartender on hand as their picnic permit required.

But they said servers checked for proof-of-age and people under 21 may have



"Maybe it's the mentality we have in this area that a picnic is an open season for underage drinking."

— Gary Rozmarynoski, Suamico town chairman

problems Saturday. Rozmaryn-

BARABOO
News Republic

JUN 3 1993

Sheriff dept. make arrests at underage drinking party

TOWN OF GREENFIELD — Numerous arrests for underage drinking and other violations have stemmed from a bust of a party early Saturday in which more than 200 people ranging in age from 15 to 26 were present.

At about 12:30 a.m., according to the Sauk County Sheriff's Department, officers responded to a loud party at the David Cox residence located on Clingman Road. Additional officers were called to the scene and about 32 juveniles and underage drinkers were identified. Many party goers at the scene fled into nearby woods. In all, 13 abandoned vehicles were ticketed and towed from the scene.

David A. Cox, 21, of Clingman Road was arrested and charged with selling intoxicants without a license or permit and for knowingly permitting the illegal consumption of alcohol by underage persons. The first charge carries a maximum penalty of nine-months imprisonment and a $10,000 fine. The second charge carries a fine of more than $500.

Also arrested was Rebecca J. Meisenberg, 18, of Second Ave. in Baraboo. She faces charges of selling intoxicants without a license or permit and for knowingly permitting illegal consumption of alcohol by underage persons. She faces the same potential penalties as Cox.

During the course of the investigation, Randy L. Barreau, 21, of Grosklaus Road in Baraboo was arrested and charged with disorderly conduct, criminal damage to property and resisting arrest. He will also be charged with procuring alcohol for underage persons.

Madison, WIS. 53705
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MADISON
The Capital Times
MAY 2 0 1993

Age 21 drinking law? Yeah, right

By Tom Strong
Associated Press

WASHINGTON — College students under 21 drink more alcohol and suffer more hangovers, injuries and legal difficulties than those who are over 21, researchers reported today.

The study, based on a survey of about 58,000 students, also found that those in the Northeast drink more and go on binges more often than their peers in other parts of the country.

Researchers from Southern Illinois University and the College of William and Mary analyzed survey results collected at 78 campuses between 1989 and 1991.

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Underage college kids imbibe most

Initial findings released in September showed that students with low grades consume about three times as many drinks as those on the honor roll.

That first round also found that students at small schools are drinking more than those at larger schools, and men are more likely than women to go on heavy binges.

The report, based on the largest survey of college students, is intended to help campus leaders understand the frequency of drug and alcohol use as they design programs to combat substance abuse.

And it showed alcohol is the drug of choice: 85 percent of respondents said they used it in the last year, compared with 28 percent who used marijuana and 5 percent each for cocaine, hallucinogens and amphetamines.

In the latest findings, researchers focused on underage drinking and regional patterns of substance abuse.

"Underage drinkers aren't as careful and don't handle alcohol as well as older students. This has serious consequences and needs to be addressed," said Philip W. Meilman, the study's co-author and director of William and Mary's Counseling Center.

The study found 86 percent of college students under 21 drank alcohol during the year, compared with about 84 percent of other students. Sales of alcoholic beverages to people under the age of 21 are unlawful throughout the nation.

Continued on Back Page

Drinking

■ Continued from Page 1A

The average number of alcoholic drinks consumed per week among students under 21 was 5.5, compared with 4.2 for older students.

About 48 percent of the younger students reported binging, consuming five or more drinks in one sitting, during the two weeks before the survey, researchers said. That compared with 35 percent for students over 21.

Moreover, alcohol and drug use led to twice as many injuries, fights, arguments, incidents of vandalism and run-ins with authorities by the younger abusers, the study found.

They also were twice as likely to have been the victims of sexual misconduct or to have taken sexual advantage of others, according to the report.

Students under 21 suffered more hangovers, nausea, memory loss, poor test scores and suicidal thoughts or actions, researchers said.

In the regional data, the ... person alcohol consumption ranked at 7.1 drinks per week in the Northeast, 5.3 in the North Central region, 3.9 in the South and 2.9 in the West.

Fifty-three percent of the Northeast students said they had gone binge drinking in the two-week period before the survey, compared with 46 percent in the North Central region, 35 percent in the South and 29 percent in the West.

The Northeast shows the greatest alcohol, tobacco, marijuana and hallucinogen use. The West is lowest in alcohol and tobacco use, while the West and Northeast are highest in cocaine use. The South shows the highest

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Officer who raided party: Lower drinking age

■ He's critical of lawmakers for buckling under to federal pressure

By Tony Walter
and Anne Klemm
Press-Gazette

The police officer who raided a beer party where Jason Listle died says the state's drinking age should be lowered to 19.

"The majority of the people I work with think it shouldn't be 21," Brown County Sgt. Tom Bennie said Thursday. "You can be 20, own a home, have a family and a job, but you can't have a beer."

Bennie, who helped break up a beer party in the woods in the town of Glenmore early Sunday, emphasized that he still thinks the law has to be enforced.

"I don't agree with it being 21 but I'm going to enforce it because it's the law. I'm not promoting drinking but I think this law is becoming a revenue-maker (for municipalities) rather than a deterrent to people."

Bennie said he decided to speak out because of televised reports in which some people blamed the police for Listle's death. He also said the media always gets the opinions of administrators and not of the officers.

"Nobody seems to think that anybody has opinions except the bosses," Bennie said.

He and Officer Neil Brown broke up the beer party when they walked down a dirt road that led to a fire pit in the woods. About 80 people fled before the officers arrived at the scene.

Listle, 20, was one of them. He apparently became disoriented in a nearby quarry and drowned. His body was recovered Tuesday.

"Everyone has to take responsibility for his own actions," said Bennie, 44, an 18-year veteran with the Brown County Sheriff's Department. "And if the young people don't like the law, they should try to change it. But I don't think it's the best law."

Bennie said many young peo-

Please see Officer/A-2

From A-1

☐ Officer

ple would be safer, and probably more sober, if they were drinking in taverns instead of at illegal parties.

"Where are you going to drink the most, at a bar where you have to pay $2 for a drink, or at a party where you chip in a buck to buy a keg?" Bennie said.

He also said trying to enforce the law at illegal beer parties isn't doing county taxpayers any favors.

"How are the taxpayers getting coverage for their money when we're out chasing beer parties?" Bennie asked. He said two officers were breaking up a party near Point Comfort on the Green Bay shore at the same time he and Brown were in Glenmore. "Whose going to be taking care of the other stuff?" he asked.

Bennie said he was frustrated by a system that will give a bigger fine to a speeder than to someone who molests a child, who will let a cocaine user off with a lighter fine than an underage drinker.

He blames the Wisconsin Legislature for buckling to federal pressure to raise the drinking age or face the loss of highway funds.

"Legislatore don't have the gumption to tell the federal government to keep their money," Bennie said.

Meanwhile, police are hoping to find out who bought the alcohol for the Glenmore party.

Police found "lots" of beer cans and cups indicating a keg was there at the scene of the party, sheriff's Lt. Robert Demro said.

If whoever bought the alcohol is over 21, he or she could be charged with procuring alcohol for minors.

But police don't know whether the kids bought beer from a tax tavern, used a fake ID or got it from an adult or "a friend of a friend," Demro said. "There are 101 ways to procure alcohol."

Police have found only a handful of the people they believe were at the party. Most of them are being tight-lipped about the whole thing, Demro said.

It's doubtful police will be able to find who bought the alcohol. But Listle's death should be a grim lesson to anyone who brought it to the party, Demro said.

"If anybody has a conscience at all, they might think 'I bought that beer and now we've lost one of our own; someone's died.' Then they might think about whether they're going to do it again."

Blood test results indicating whether Listle had been drinking won't be available for a week or two, Brown County Acting Medical Examiner Genie Williams said Thursday.

DANE COUNTY'S AFTERNOON NEWSPAPER

The Capital Times

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Underage drinking: Out of control?

By Joe Schoenmann
The Capital Times

Alcohol use by underage drinkers is growing so fast and seriously that some campus officials and police are having a hard time figuring out how to stop it.

"By far, it outstrips anything else in the college arena," said Det. Charles Flad of University of Wisconsin-Madison police. "It causes problems with school, roommates and parents when grades go to hell."

Though drinkers exist at all ages, the UW-Madison campus has about 17,000 students under the age of 21.

In a nutshell, Flad sees more underage drinkers getting more severely drunk.

"It seems now that they drink to excess now because when they finally do get alcohol, they act like it's the last time they might have a drink."

• • •

Officials here see serious problem

Various illegal drugs are still sold on campus, but alcohol is the drug of choice, observers say.

Courtie Demarest, an assistant UW dean of students, said the "rallying point" of house parties is usually the availability of alcohol.

Consequently, police are dealing with more and rowdier calls on weekends.

"Apartment parties where they're bringing in half-barrels, we're getting people out in the streets, fights, neighbor problems and that makes for a lot of headaches," said Flad.

He doesn't chalk up those citations to tough undercover work.

"We get so many calls downtown on any given weekend, we don't have to search out underage drinkers, they search out the officer."

Statistics from UW Police and Security show police calls for liquor law violations increased from 266 to 414 between 1987 and 1988, fell to 283 in 1989 and were at about 200 in 1990.

The number of charges filed by police seems to continue to grow, however, possibly pointing to more people being found at larger and larger partles where alcohol is served.

In 1987, 227 charges were filed, while 390 were filed in 1989. Figures for 1990 were unavailable.

Still, a UW survey completed last spring, she said, indicated fewer students are drinking.

But Flad and other weekend officers know one thing: they are issuing a lot of citations for underage drinking.

Which brings up another sore point echoed by Flad and other Madison and UW police officers.

Most feel a general dislike for the 21-year-old drinking age.

Some officers have admitted it's hard to give a $151 citation to a college student standing with a beer in his hand, not knowing how much he really drank.

The better cutoff point would be 19, thinks Flad, a former UW-Madison student who 20 years ago tended bar at a place called the "Snack Shack," — now Joe Hart's.

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Publisher Editor Managing Editor

Dilemma persists over drinking age

There's a lesson to be learned for everyone in Judge Eric Wahl's recent decision to dismiss citations issued to 10 liquor store and tavern employees for selling beer to an underage woman working undercover for the Eau Claire County Sheriff's Department.

The decision hardly exonerates them from selling beer to an underage person, regardless of how old she looked. And Wahl's ruling won't do much to prevent beer parties in rural areas or private homes attended by those under the legal drinking age of 21.

And although Sheriff Richard Hewitt promises to continue occasional sweeps using underage people to keep bartenders and liquor store employees honest, don't expect an avalanche of support for the tactic, which some see as entrapment.

Editorial

But instead of this episode leaving everyone unhappy and suspicious, it perhaps should be looked at as an example of why it's time for reasonable people to re-evaluate the legal drinking age.

Years ago, the legal drinking age for liquor was 21, but some counties allowed people of a younger age, usually 18, to drink beer. The result was bloody borders as they went on road trips to find the nearest "beer island."

Then, in 1972, the "age of majority" was lowered to 18 statewide for liquor and beer. The problem with lowering the drinking age to 18 should have been apparent, especially when high school seniors legally could go to the tavern and tip a few during their lunch hour.

Finally, President Reagan, champion of less government, blackmailed states into passing a 21-year-old drinking age by threatening to pull federal highway funds from any state that didn't go along with his wife Nancy's directive.

So now we have this perpetual cat-and-mouse game, where many 19- and 20-year-olds don't abstain from drinking any more than they ever did. Instead, they find parties wherever they can, be it in a farm field or in somebody's apartment.

One recently mentioned proposal to possibly curb this ritual would be to lower the drinking age to 19 in taverns only. This would treat a group of young adults like young adults yet keep the drinking in a controlled setting, rather than sending them off to the nearest all-you-can-drink bash.

There should be other safeguards, such as no out-of-state 19- and 20-year-old drinkers, which would eliminate the return of "blood borders" in places like Hudson.

There is no perfect solution to this problem. Just about everything has been tried. Everything, that is, except real cooperation among the beer and liquor industries, tavern and liquor store owners, law enforcement and the young themselves working together on a policy, including

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SHAWANO
Evening Leader
AUG 2 2 1993

Teen drinking: Is it on the rise?

Submitted photo

One of law enforcement's newest tools to help fight drunk driving is the Mobilizer van, above. The van offers authorities the facilities of a mobile police station with the capability to test suspected intoxicated drivers immediately. One of the vans was used by Menominee Reservation police in early August. Tribal police Chief Kenneth "Paddo" Fish is shown, right.

D.A. still waiting for results of driver's blood-alcohol test

By MICHAEL J. BOUCHER
Leader Reporter

Underage drinking can kill.

That's the message local authorities want to get across to teens who drink and drive.

Every year, a tragedy occurs somewhere in Wisconsin that starts with an underage beer party.

This summer has been no different.

A Brown County youth died on a July night after he apparently fell into a flooded gravel pit while running away from law enforcement officers who raided a teen drinking party.

And a Shawano boy remains hospitalized with a serious head injury after he was injured in an accident almost four weeks ago. Authorities say alcohol was a factor in the crash.

David J. Barkow, 18, remained in critical condition at St. Vincent Hospital in Green Bay, a nursing supervisor said Friday.

The driver of the vehicle carrying Barkow, 18-year-old Matthew J. Ciesielczyk, has been issued a ticket for driving while under the influence of an intoxicant.

"It's a big problem," Shawano County Sheriff Bill Aschenbrener said of underage drinking. "A lot of young people (who drink) are involved in accidents. That's the main problem."

Opponents of Wisconsin's 21-year-old minimum drinking age argue the law doesn't stop teens from

See Underage, Page 2A

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➡Underage: Drinking on the increase

becoming intoxicated. They say it only moves the location of underage parties to back roads and other secluded areas.

A recent survey at a local high school showed 44 percent of its 10th graders reported using alcohol, Aschenbrener said. That figure climbed to 60 percent by the 12th grade.

"It's that way all over the place," he stated.

Aschenbrener said the most popular spot for teen drinking parties here are the Mooseyards located north of Shawano Lake.

And it's not hard for minors to get alcohol, he said.

"I think it's pretty easy," said Aschenbrener. "You get into a crowded tavern and it's busy — they don't check everybody. And there's an awful lot of fake IDs out there."

A Shawano woman, who just turned 21, said alcohol was readily available when she was still a minor.

"At certain (local) bars, it was never a problem getting served," she said.

And was it difficult to get beer for teen parties?

"No, not at all," she stated. "You just have to know the right people — someone who was of age to buy it."

Sheriff's department statistics seem to indicate the problem is growing.

The number of minors cited for underage drinking has risen almost 400 percent from 27 in 1988 to 102 last year.

"There's a tremendous problem with underage drinking," acknowledged Shawano police Chief Donald Thaves.

"We've seen enough tragedies over the past couple years to say 'this is what happens'," Thaves said.

One of those cases occurred March 28 when 18-year-old Robert A. Richter of rural Bonduel died in a head-on crash on Highway 117.

An autopsy showed Richter was legally intoxicated. Operators of two local taverns — Double Vision in the Town of Washington and AJ's County Bar in Waukechon — were convicted of serving beer to the youth before he died.

And in the latest incident, authorities say they suspect Ciesielczyk had been drinking before he got behind the wheel of the 1986 GMC Jimmy owned by Barkow's father.

The two friends and 18-year-old Jennifer E. Gehr were driving to Green Bay on Highway 29 around 8:30 a.m. July 29 when Ciesielczyk lost control of the vehicle and it rolled over.

Barkow, who police say was sleeping in the rear of the vehicle, was critically injured after he was ejected from the auto.

A state trooper issued Ciesielczyk a ticket for driving under the influence. The accident reportedly followed a beer party that started the night before at the home of Barkow's parents, who were out of town on vacation.

A blood sample was taken after the crash from Ciesielczyk, a SHS basketball star who has accepted a scholarship to Augustana College in Sioux Falls, S.D.

Ciesielczyk's defense attorney, William Appel of Green Bay, confirmed this past week he has received a copy of the blood-alcohol test results.

But District Attorney Gary Robert Bruno said recently he has still not seen the test results.

"The (state) trooper hasn't gotten it to me yet," Bruno said.

A copy of the citation issued to Ciesielczyk and the results of his blood-alcohol test were not on file with the Shawano County Clerk of Courts office Friday morning.

Although Ciesielczyk has not yet been formally charged, Appel in a letter to Shawano County Circuit Court Judge Thomas Grover has entered a not guilty plea for the Shawano youth.

Ciesielczyk is scheduled to appear before Grover at an Aug. 30 initial court appearance.

Appel did not release the test results, but said, "I think the state trooper jumped the gun" in giving Ciesielczyk a ticket.

But any presence of alcohol in Ciesielczyk's blood after the crash — even if it is less than the state's 0.10 legal intoxication limit — would be a violation of the state's absolute sobriety law for anyone under the age of 19, Bruno confirmed.

Under state law, persons who are not 21 years old convicted of alcohol-related violations face penalties including driver license suspension and fines. But officials are now looking at tougher measures to try and discourage underage drinking.

At the same time, the Wisconsin Tavern League is renewing its push to lower the drinking age to 19.

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Lower drinking age

On Thursday, an Assembly committee will be considering legislation that would lower Wisconsin's minimum drinking age from 21 to 19.

Opponents of the measure point to the usual concerns, those being the reduction in the number of drunken-driving accidents and deaths since the drinking age went from 18 to 19 and then on to 21, as well the potential loss of about $20 million in federal highway funds.

As expected, members of the Tavern League of Wisconsin back the measure. They say a lower drinking age would raise about $2 million in additional revenue from beverage sales, compensating somewhat for the lost highway aid. They also say the state should decrease the potential for underage drinking in Indian casinos by lowering the drinking age rather than raising the gambling age from 18 to 21, an idea being batted about. It'd be a tradeoff because the estimated $23 million in gambling revenue would offset the lost highway monies.

Also, they'll be telling the Assembly Excise Taxes and Fees Committee that state law allows someone under 21 to gamble at tribal casinos where the drinking age can't be enforced. While there have been no problems so far, this is a reality.

The gambling issue aside, we support a 19-year-old drinking age in Wisconsin. A higher age has not deterred alcohol consumption and, for some, the idea of trying something you're not supposed to is alluring. A recent survey showed that three out of five Jefferson County teens in grades 7-12 drink alcohol. Although this kind of survey tends to overstate this case, we doubt very much they'll take a two-year hiatus once they hit 19.

For better or worse, voting booths and courtrooms have deemed that 18 is the age Americans reach adulthood. However, a 19-year-old drinking age is wiser than 18 because there are 18-year-olds who are still in high school.

Finally, a good portion of the drop in drunken driving fatalities can be credited to Wisconsin's tougher penalties and fines, along with a greater awareness of the hazards of mixing alcohol and wheels. There is no doubt that people today are more responsible drinkers when they're away from home. Heavier OWI penalties and educational efforts have had an affect, along with the natural aging of the population.

We hope our state lawmakers on Thursday take more than a fleeting moment to consider dropping the drinking age back to 19. And we hope they advance it to the full Assembly for further — and undoubtedly lively — debate.

The Daily News
Rhinelander, WI
Nov. 28, 1993

An editorial

Drinking age should be lowered

THE CURRENT proposal by some state legislators to lower the drinking age to 19 gets our vote.

When the drinking age was raised, we were opposed to it. And we're still opposed to a 21-year-old drinking limit. Young people are considered adults at age 18. This country gives them responsibility in the form of the right to vote and serving in the U.S. military. Yet, we say they're not responsible enough to drink.

Opponents to lowering the drinking age are concerned about the number of motor vehicle accidents which may occur when inexperienced drinking and inexperienced driving are mixed.

Unfortunately, saying it's illegal to drink alcoholic beverages if you are under the age of 21, doesn't mean that the law will be obeyed.

Rather what happens is that many young people under 21 do drink. They drink in fields, at private homes or wherever else they feel they can do so without being caught. So we're not solving the problem. Instead, we're moving the location of drinking which may in fact be more dangerous. Drinking on the sly tends to become a challenge. If these people feel they can get away with drinking then they'll try to see how much they can drink and not get caught.

ALLOWING THE under 21 crowd to drink legally may cut down on some of these problems. It will also treat them like the adults we expect them to be.

Drinking age of 19 gets push in state

Assembly panel's vote on the issue would be first since 1986

By AMY RINARD
Sentinel Madison Bureau

Madison — For the first time since 1986, lawmakers plan to vote this week on measures to lower the state's legal drinking age to 19.

An Assembly committee is scheduled to vote Thursday to restore a bill to lower the age from the current 21.

A lobbyist for the powerful Tavern League of Wisconsin said Monday the state should decrease the drinking age to avoid losing tax dollars to border states.

"We're supporting a 19-year-old drinking bills and drinking age," said Scott E. Walker, the league's ornamental affairs director for the league.

Stenger said the bill would lower drinking

Preese: Warns consistency

age would cause the state to lose money.

When Rep. Stephen J. Freese (R-Hazel Green) introduced the bill to limit gambling, he said it was to eliminate the potential for underage drinking at Indian casinos. He said there were no problems reported with underage drinking at casinos. Freese said, the state's 21-year-old drinking age is inconsistent with the Indian lands, which could create a problem.

Freese, a co-sponsor of legislation to lower the drinking age to 19, said it would be inconsistent to set a 19-year-old drinking and gambling age. "All I'm after is consistency," he said.

Lottery officials said they estimate enactment of the 21-year-

See Drinking / A

tery and pari-mutuel tax revenue.

Raising the gambling age would be a good trade-off for the state," Stenger said. "We'd lose $18 million but save $23 million in gambling revenue."

The $18 million estimate takes into consideration that lowering the drinking age could produce about $2 million in additional excise tax revenue from sale of alcoholic beverages.

But most important, Stenger said, lowering the drinking age would save tavern industry jobs and possibly racing industry jobs.

Gaming Commission Chairman John M. Tries said last week that banning 18- to 20-year-olds from the state could be enough to put a few of the financially ailing dog tracks out of business.

"We think lowering the drinking age to 19 is better for both industries," Stenger said.

The state's tavern industry has been in a financial slump for years since the drinking age was raised to 21, and new laws have succeeded in cracking down on drivers who drink.

Thursday's action by the Assembly Excise Taxes and Fees Committee will be the first time

Panel plans vote on drinking age

Drinking

From 1A

old gambling age would mean an annual loss to the state of $22 million in lottery revenue and $933,000 in racing revenue.

"It's a good trade-off for the state," Stenger said. "We'd lose $18 million but save $23 million in gambling revenue."

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"We think lowering the drinking age to 19 is better for both industries," Stenger said.

The state's tavern industry has been in a financial slump for years since the drinking age was raised to 21, and new laws have succeeded in cracking down on drivers who drink.

Thursday's action by the Assembly Excise Taxes and Fees Committee will be the first time since 1986, when it was fir introduced, that legislation lower the drinking age to 19 h reached even that preliminar stage in the legislative process.

Stenger said support for t proposal is growing as legislato realize that raising the drinki age has not cut down on drinki by 18- to 21-year-olds.

"It's just more of an incon nience to them," he said. "Th just have house parties now drink someplace else."

Rep. Thomas Springer (D-H sinee), chairman of the Exc Taxes and Fees Committee, s he expected the committee to dorse the 19-year-old drink age bill. It would go to the Ju Finance Committee for revi before it could come up for Assembly vote.

Springer, who at 25 is am the youngest members of Legislature, said he would vo favor of the 19-year-old drin age bill for philosophic reas "It's a fairness issue," he "We consider people that ag being adults for everything but consumption of alcohol."

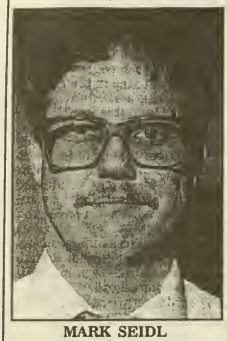
Springer said he didn't t the anticipated committee a to send a message that "drin is OK" because too many p drink too much already.

"But, maybe it's because c age, I don't consider 19- an year-olds as kids. I view the pretty responsible people."

Viewfinder:

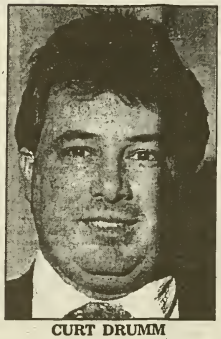
to 19 is being proposed in Wisconsin What are your thoughts about this prop osal?

Herald Times Reporter photos and interviews by Ron Hoerth



MARK SEIDL
Manitowoc

I believe the drinking age should be lowered to 19. People should be responsible enough at this age to handle this privilege like adults.



CURT DRUMM
Two Rivers

Having grown up with the 18-year-old drinking age, I'm not aware of serious problems that any of us had. As far as keeping it out of the high schools, I don't think 21 will keep alcohol out any more than 19. Those kids that want to get something, whether it be alcohol, drugs or guns, will get it regardless. On the positive side, it will help generate more sales and tax revenue to help our communities.

RENEE MC DOUGALL
Manitowoc

I do not feel it should hav been raised to 21 in the firs place. If you are an adult at 1 — that should encompass a adult activities.

LINDA KAUFMANN
Manitowoc

As a mother of two sons, ages 17 and 15, I believe having the drinking age at 19 would be good. When I was growing up and the drinking age was 18, we never had problems at the bars that we went to. I am in favor of

DAVID BEHNKE
Manitowoc

I don't see anything wrong with the proposal. The truth of the matter is, that those who are going to drink responsibly will do so and that those who are going to drink irresponsibly are going to get alcohol legally

JUDY GOODCHILD
Two Rivers

I would like to see it at 19. There are not too many places young adults in this age group can go to and socialize. They need this and must be responsible for their behaviors if this should become a reality.

WISCONSIN
Newspaper Association
702 N. Midvale Blvd.
Madison, Wis. 53705
Clipping Service Division
WEST BEND
Daily News
JAN 26 1994

1005

Lower drinking age impact weighed locally

By JOE WILLIAMS
Daily News Staff Writer

Lowering the drinking age could ovide 19- and 20-year-olds in est Bend some alternatives to andering the streets and hosting legal house parties, West Bend olice Chief James Schwartz said. Other local officials, however, e more skeptical of a movement Madison to change the legal inking age from 21 to 19.

A vote is scheduled Thursday on e legislation and, if passed, uld result in the loss of about $20 illion in highway funds for the state.

"The reason it changed in the first place was because the federal government forced the issue," Schwartz said.

"I guess my problem is having it go back and forth," he said. "If they want to make the drinking age 19, I don't have a problem with that."

Schwartz said the lower drinking age would still keep alcohol out of the high schools and give something to do for the 19- to 21-year-olds wandering the streets on the weekends. Many people in that college-age group are already drinking, he said.

Other local officials interviewed for this story were against allowing 19-year-olds to legally drink alcohol.

"I'd like to see some serious discussions before they go and arbitrarily move the drinking age down," said Washington County Sheriff Robert Schultels. "I think it was the intent of the original move to reduce drinking and driving accidents, and the statistics show this is working."

Marty Ison-Kocos, associate director of the Council on Alcohol and Other Drug Abuse of Washington County, said both alcohol related automobile accidents and fatalities have decreased for 19- to 21-year-olds since 1986 when the age was raised from 19 to 21.

Figures from the Wisconsin Department of Transportation show that 19-year-olds have been 71 percent less likely to be involved in alcohol related accidents than before; 20-year-olds are 68 percent less likely, she said.

West Bend High Schools Executive Principal Jennifer Reinert said she worried about the negative effects of lowering the legal age.

"I think with all the problems that already exist with drinking and drugs, to bring it back down doesn't make sense," Reinert said.

School Superintendent Michael Wiziarde said he was a principal once before when the age was lowered from 21.

"There's no question there was a trickle down through the grades. There was greater accessibility (to alcohol) for kids who associated with legal drinkers," he said.

WISCONSIN
Newspaper Association
702 N. Midvale Blvd.
Madison, Wis. 53705
Clipping Service Division
LA CROSSE
Tribune
JAN 26 1994

Opinion
3Aa

Lawmakers push lower drinking age

By RICHARD NIAL
Of the Tribune staff

Should Wisconsin allow 19-year-olds to drink?

Several area state legislators think so, even though it could mean the loss of about $30 million in federal highway aid.

"At 18, you can contract, marry, serve your country and die for your country," Rep. Dale Wayne Johnsrud, R-Eastman, said Tuesday. "You have all the other benefits of adulthood but this one."

A bill to lower the drinking age from 21 to 19 will be up for a vote Thursday in the Assembly Excise Taxes and Fees Committee.

While most area legislators support the bill, they acknowledge it probably won't become law.

Other highway safety concerns, federal officials have held out the loss of highway aid as a stick to keep states from enacting lower drinking ages.

Johnsrud argued there are not enough opportunities for young people to socialize. Places where liquor is served also offer dancing, pool and other activities.

Johnsrud is a co-author of the bill, as is Barbara Gronemus, a Whitehall Democrat, and Terry Musser, a Melrose Republican.

Rep. Mark Meyer, D-La Crosse, supports the bill. Rep. Virgil Roberts, D-Holmen, is sympathetic.

Roberts was chairman of the Assembly Highway Committee last year and said he never allowed excise and fees committee before voted on because it "just raises false hopes."

He said: "It's unlikely the lower drinking age would pass the Assembly. Roberts said. But I still don't think it's worth the loss of highway aid.

Rep. Stephen Freese, R-Hazel Green, favors lowering the drinking age to 18 but opposes gambling age.

■ Rep. David Brandemuehl, R-Mount Ida, believes the higher drinking age helps save lives.

"If we're going to establish responsible drinking habits, we don't necessarily have to do it at college parties," he said.

Agenda Item No. _____
Copy Mailed to Alderpersons _____

City of Madison, Wisconsin

A RESOLUTION _____
urging the State and Federal governments to reduce the drinking age from 21 to 19 years of age.

Presented October 19, 1993
Referred ALRC, MPD
Rereferred _____
Reported Back _____
Adopted _____ POF _____
Rules Susp. _____ Tabled _____
Public Hrg. _____

* * * *

APPROVAL OF FISCAL NOTE BY THE COMPTROLLER'S OFFICE IS NEEDED
Approved by:

_____
Comptroller's Office

* * * *

RESOLUTION NO. _____

ID NO. 14034

Drafted by: Rick Petri
Assistant City Attorney

Date: October 14, 1993

Fiscal Note: No funds required.

SPONSOR(S): Ald. Connolly

WHEREAS, the 21-year-old drinking law has resulted in wholesale violation by affected adults whose allegiance to the rule of law has been eroded; and

WHEREAS, the law has not reduced drinking by those aged 19 and 20 but, rather, has driven that drinking underground and into unsupervised settings more likely to produce binge drinking; and

WHEREAS, enforcement of the law has diverted precious law enforcement resources away from other pressing societal needs,

NOW, THEREFORE, BE IT RESOLVED that the Common Council of the City of Madison hereby urges the State and Federal governments to adopt legislation to permit a legal drinking age of 19 years.

c:\resdraft\40drink
93/RP/#811

OFFICIAL CITY OF MADISON - COMMON COUNCIL REFERRAL

For the attention of ALCOHOL LICENSE REV. COM.

From Council Meeting Of 10/19/93

Lead Referral Agency ALCOHOL LICENSE REV. COM.

REPORT TO COUNCIL ON OR BEFORE 12/07/93

THE FOLLOWING AGENCIES MUST SUBMIT THEIR RECOMMENDATIONS TO THE LEAD REFERRAL AGENCY:

POLICE DEPT.

The following summarizes the attached document(s) referred to you.

ID NO. STATUS
TYPE
DESCRIPTION

14034 REFER
RESOLUTION

Urging the State and Federal governments to reduce the drinking age from 21 to 19 years of age.

RECOMMENDATION OF AGENCY REPORTING:

SIGNED BY _____

DATE _____

EAU CLAIRE COUNTY
SHERIFF'S DEPARTMENT
728 2nd Ave., Eau Claire, WI 54703

Richard M. Hewitt, *Sheriff*
David A. Schultz, *Undersheriff*

(715) 839-4701
(715) 839-4706

April 7, 1989

TO: Whom It May Concern

FROM: Sheriff Richard Hewitt RMH

SUBJECT: 19 Year Old Drinking Bill

There is now some history to the 21 year old drinking law. It has proven to create an environment that breeds a number of problems for law enforcement on the local level as well as raise some public safety issues.

This legislation, while insuring continuity with bordering states, has required increased commitment of resources from the local law enforcement agencies that could, and should, be dedicated to other areas of responsibility.

It has also created the need for additional court time which also consumes resources that should be utilized in other areas.

The law has forced the 19 and 20 year old citizens to travel longer distances and consume intoxicants in rural areas, adding a public safety issue, not only in the area of vehicular safety, but also in other areas such as fire suppression.

Finally, most of the population targeted by this legislation are very responsible and will handle adult responsibilities in an adult manner. I think it is a disservice to this population to ask them to accept other adult responsibilities, but not trust them with adult privileges. The law in this county is not as well accepted as you may perceive and I feel repeal would be endorsed by most of the population.

Any consideration given this issue would be greatly appreciated.

RMH/e

Jim Holperin

State Representative

Today is Wednesday, January 12, 1994

MEMBER:
Joint Committee on Finance
Assembly Natural Resources Committee
Governor's Council on Forestry
Legislative Council American
Indian Study Committee

Gary and Alma Ramsey
4031 Camp Bryn Afon Rd.
Rhinelander, WI 54501

Dear Gary and Alma,

Thank you for calling recently to encourage my support for legislation, Assembly Bill 259, which would lower our state drinking age from 21 to 19. I'm glad you took the time to contact me and I appreciate having the benefit of your advice.

As you know, the federal Congress has insisted that the drinking age in every state be 21 and has passed legislation (PL 93-363) to withhold substantial sums of highway aid from states which have a drinking age lower than 21. This federal pressure and the threat of a highway aid penalty has persuaded every single state in the union to adopt a 21-year-old drinking age. Some states have considered rolling back the law but, to date, none have.

I voted to raise this state's drinking age to 21, not because I thought there was anything wrong with the 19-year-old drinking age, but primarily because I could not in good conscience allow Wisconsin to be penalized some $12 million in federal highway aid the first year and $21 million every year after that for being out of compliance with federal law. Another factor which contributed to my decision to vote for a 21-year-old drinking age law in Wisconsin is that every single state around us had also passed a 21-year-old law. I was very concerned that Wisconsin not be a drinking "island" to which 19 and 20 year olds would drive in order to be able to drink legally when they could not take a drink in their home states.

Unless the federal government changes its position regarding a nationwide, uniform 21-year-old drinking age, I'm afraid I cannot support voting to lower this state's drinking age to 19.

I do want to thank you again for calling Gary and Alma and, as always, if there is other legislation you would like me to know your views on or if there is any way I may be of service in the future I would certainly urge you to contact me again.

Sincerely,

Jim

State Representative Jim Holperin
34th Assembly District

JH:ls

Office: 221 North, State Capitol, P.O. Box 8952, Madison, WI 53708-8952 •
Home: P.O. Box 1255, Eagle River, WI 54521 • 1-715-479-7874
Call toll-free to the Capitol • 1-800-362-9472

RECEIVED AUG 23 1993

RICE & HEITMAN, S.C.
ATTORNEYS AT LAW
112 WEST OAK STREET
P.O. BOX 255
SPARTA, WISCONSIN 54656

J. DAVID RICE
RICHARD J. HEITMAN

TELEPHONE:
(608) 269-2174

August 19, 1993

Hon. Tommy G. Thompson, Governor
Stats of Wisconsin
State Capitol
Madison, WI 53708

Re: Reducing the State Drinking Age from 21 Years to 19 Years for On-Premisee Consumption

Dear Governor Thompson:

Enclosed is a photocopy of an article recently published on the front page of the Milwaukee Sentinel indicating that the State Tavern League will propose reducing the age for on-premises consumption of alcoholic beverages to 19 years old. As a parent with two sons, one 18 years old and about to begin college, and the other 16 years old and still in high school, I would highly recommend this change.

The 21 year old drinking law, which was adopted in the 1980's in response to a federal requirement for obtaining highway aids, has been about as unsuccessful as Prohibition was in the 1930's. From my personal experience both as a lawyer and as a parent, I have concluded that this law has not prevented 19 year olds from drinking. What it did was to drive 19 year olds out of taverns and into beer parties held in remote rural areas or in apartments or homes where no parent is present. Unfortunately, the effect has been to send 19 year olds off to beer parties which are attended by 14 and 15 year olds. Such parties are an every weekend event in most of the rural communities in Western Wisconsin. I suspect that they go on elsewhere in the state with equal frequency.

When I was 18, Wisconsin had an 18 year old beer bar law. Back then, parties involving 14 and 15 year old drinkers were considerably more rare. The reason was that 18 year olds could drink in taverns and therefore they normally socialized in taverns. Boys and girls under 18 could not get into the taverns and therefore they did not socialize with the 18 year olds. Now everyone from 14 to 20 is "illegal," and they end up socializing together, with alcoholic beverages being the focal point of the social event.

As a parent over the last several years I have attended numerous graduation parties. I have observed parents of graduates allowing their 18 and 19 year children and their children's friends to drink openly at these parties. I have talked with parents of graduates who approvingly told me of their child attending an all night "senior party" where there obviously was drinking by seniors and underclassmen. I used to criticize these parents for allowing this. I don't anymore. Since my oldest son turned 18 and graduated from high school, I now realize the dilemma these parents faced.

These parents, like me, grew up in the 18 year old beer bar days, and they do not believe in the wisdom of the 21 year old drinking age. Consequently, they (we) are forced into a choice of fighting with their children in support of a law the parents don't believe in or trying to make the best of a bad situation. We have opted for the latter. Rather than tell our children they must not drink under any circumstances, we tell them to be responsible when they drink. This means trying to impress them not to drink and drive, not to get falling down drunk, not to provide alcoholic beverages to persons under 18 years of age, and not to act in an irresponsible manner just because you have been drinking. I am very uncomfortable adopting this position with my children, but I am also very uncomfortable being a hypocrite. The present law makes hypocrites out of all of us.

I believe that the present law has remained in force because of a belief that the great middle class of Wisconsin citizenry is in favor of the 21 year old drinking law. While the public consciousness of the dangers of drinking, and particularly drinking and driving, has been heightened in the last ten years, I believe that parents recognize the folly of the present law. Like Prohibition, the negative effects simply outweigh the positive. It is time for a change. I urge you to lead such a change.

I am sending a copy of this letter to my two representatives for their information. I am also sending a copy to the Wisconsin Tavern League. I would be happy to testify as a witness in any legislative hearing involving this subject.

Personal regards.

Sincerely,

J. David Rice

JDR:wks

Enclosure

cc: Hon. Rodney Moen (w/enc.)
Hon. Terry Musser (w/enc.)
Wisconsin Tavern League

To: Lnite Members
From: Virgil Roberts
FYI T.L.W.

Wisconsin Department of Transportation

Tommy G. Thompson
Governor

Ronald R. Fiedler, PE
Secretary

OFFICE OF TRANSPORTATION SAFETY
P. O. Box 7910
Madison, WI 53707-7910

March 25, 1991

Representative Virgil Roberts
Chairperson
Excise and Fees Committee
Room 112B
State Capitol
Madison, Wi 53703

Dear Representative Roberts

Members of the Excise and Fees committee asked whether NHTSA has a process for states to request exemptions from apportionment penalties for failure to follow federal guidelines regarding the 21 minimum drinking age. I have investigated this issue and have been informed that NHTSA does not have a process for requesting such exemptions.

As you know, testimony at the recent public hearing seemed to indicate that the state of Louisiana had been allowed an exemption from these penalties. However, NHTSA has informed WisDOT that Louisiana has not received any such exemption. Rather, NHTSA has allowed Louisiana to continue receiving full federal funding pending the results of an investigation into possible violations of federal regulations (relative to the drinking age) by the state of Louisiana.

Members of the committee also asked for further data regarding the total number of crashes occurring among 19 and 20 year old drivers before and after raising the minimum drinking age. Enclosed is a graphic describing total traffic crashes among 19 and 20 year old drivers in 1985 and 1986 (minimum drinking age was raised to 21 on September 1, 1986.) and in 1989. The crash data for 1990 is not yet available.

Note that the percent of drivers involved in crashes in the 19 and 20 age group has remained essentially unchanged since raising the minimum drinking age. The slight change since 1985/86 was found not to be statistically significant.

Sincerely,

Dan Roberts
Policy Analyst

Reactance Theory and Alcohol Consumption Laws: Further Confirmation among Collegiate Alcohol Consumers*

DANIEL N. ALLEN, M.S., DAVID G. SPRENKEL, M.A., AND PATRICK A. VITALE, PH.D.†

Department of Psychology, University of South Dakota, Vermillion, South Dakota 57069

ABSTRACT. By the late 1980s, the United States legal drinking age had increased to 21 years. Based on psychological reactance theory, one would predict that these law changes would cause underage collegiate consumers to drink more alcohol because of the belief that their behavioral freedom was being reduced. It was hypothesized that underage collegiate alcohol consumers (UC) would drink more than their legal-age peers (LC) if psychological reactance was a contributing factor to consumption, whereas no differences would be present between the UC and LC groups' usage of illicit drugs, as these had not been affected by recent law changes. To test this hypothesis, a sample of 2,142 college students from 10 midwestern postsecondary educational facilities responded to the Alcohol and Other Drug Use Needs Assessment Survey in the spring of 1990. Mann-Whitney U analyses revealed significant differences between groups on alcohol use measures, but no differences were present on illicit substance use measures. These results are interpreted as supporting reactance theory. (*J. Stud. Alcohol* 55: 34-40, 1994)

BY JULY OF 1987, all of the United States had adopted laws making it illegal for individuals under the age of 21 to buy or consume alcoholic beverages. This change was intended to decrease the number of negative outcomes resulting from irresponsible alcohol use through limiting consumption by younger individuals. Although some have suggested that traffic fatalities have decreased in relation to these new laws (Wagenaar, 1981; Wagenaar and Maybee, 1986), Vingilis and De Genova (1984) have reviewed the literature regarding consumption rates following law changes and concluded that, in regard to decreases in consumption rates among underage consumers, the evidence remains inconclusive.

On the other hand, Engs and Hanson (1989) have suggested that raising the alcohol consumption age to 21 has actually caused an increase in the rate of collegiate alcohol consumption among underage students due to a theoretical motivational state known as "psychological reactance" (Brehm, 1966). In short, psychological reactance theory postulates that "if a person's behavioral freedom is reduced . . . he [or she] will become motivationally aroused. This arousal would presumably be directed against any further loss of freedom and . . . toward reestablishment of whatever freedom had already been lost or threatened . . . this hypothetical motivational state . . . may be considered a counterforce . . . called 'psychological reactance' " (Brehm, 1966, p. 2). Verification of this theory has been reported in a variety of situations including adolescent drug use (Weng and Newcomb, 1989), advertisement (Lessne and Notarantonio, 1988) and patient compliance (Graybar et al., 1989), to name a few. It has also been reported that the greater the amount of perceived coercion, the greater the noncompliance by the coerced individual (Brehm and Brehm, 1981).

In light of this, raising the legal alcohol consumption and purchasing age could be seen as potentially causing psychological reactance in underage students. This is because alcohol consumption is, and has traditionally been, highly associated with college life and activities, with the large majority of students consuming at least some alcohol (Engs and Hanson, 1989; Maddox, 1970; Straus and Bacon, 1953). Denying students the opportunity to make choices in this area may be perceived by students as a coercive attempt to limit their behavioral freedom. According to reactance theory, students under the legal drinking age may then try to regain this lost behavioral freedom by making an even greater effort to acquire and consume alcoholic beverages. Some evidence has accrued to suggest that this is actually the case with adolescent drug users (Weng and Newcomb, 1989) and underage college alcohol consumers (Engs and Hanson, 1989). The present article

Received February 27, 1992. Revision October 30, 1992.

*This research was supported in part by U.S. Department of Education Fund for Improvement of Post-Secondary Education grant P183D90012, and was conducted in conjunction with the Consortium of Alcohol/Drug Resource Educators (CADRE), Southwest State University, Marshall, Minn.

†Patrick A. Vitale is with the School of Education, University of South Dakota, Vermillion, S D

reports survey information that further supports psychological reactance as a motivating force that serves to increase underage alcohol consumption.

Psychological reactance theory, as it relates to college alcohol consumption, can be examined in a number of ways. One method is to compare the current consumption patterns of legal-age and underage drinkers to previously reported patterns of consumption for the general college population. Engs and Hanson (1989) surveyed 3,375 college students from 56 postsecondary education facilities representative of the U.S. college population. They found that more underage students consumed alcohol than did their legal-age college peers. This current consumption pattern appears to be in opposition to the pattern occurring over the past 30 years as, during that time period, the number of alcohol consumers typically increased with age and year in school (Barnes and Welte, 1983; Engs, 1977; Johnston et al., 1989; Straus and Bacon, 1953). Engs and Hanson (1989) concluded that ". . . the legislation may actually have contributed to increased drinking among under-age students through the arousal of reactance motivation" (p. 1085).

A similar though somewhat different technique was more recently employed by Gordon and Minor (1992). These authors have reported the results from two identical surveys conducted 1 month and 13 months after the minimum drinking age was raised in North Carolina. Students were asked a number of questions designed to gauge their impressions of these law changes. Questions included: (1) whether students thought that law changes would make drinking more attractive to underage drinkers; (2) if they thought the new laws would not result in fewer alcohol-related traffic fatalities; and (3) students' estimates of their alcohol consumption both before and after the law change. Underage students agreed more strongly with the first two questions relative to legal-age peers ($p < .01$), which the authors interpreted as consistent with reactance theory. However, as the underage group did not report an expected increase in alcohol consumption after the law changes, the second study was carried out 12 months later. The authors hypothesized that these 12 months would give underage students time to try to reestablish their perceived loss of freedom by consuming more alcohol than before law changes. In this second study, underage students reported significantly higher alcohol consumption rates subsequent to the law changes, confirming the reactance hypothesis.

A second approach that can be used to study psychological reactance and alcohol use involves surveying current alcohol consumption and/or alcohol-related behavior rates among college students and then comparing these rates to those obtained prior to changes in alcohol consumption and purchasing laws. A number of studies have applied just such methodology, although some have not directly focused on reactance theory as a motivating factor behind alcohol consumption rate changes. Williams et al. (1990) reported that an increase in some behaviors associated with abusive drinking occurred after law changes (e.g., hangovers, peer criticism due to excessive drinking and more missed classes), with older students exhibiting fewer of these behaviors. Mason et al. (1987) reported comparable results in that, after law changes, expected decreases in alcohol consumption and intoxication among underage students did not occur. However, driving after excessive consumption increased significantly as did alcohol consumption in vehicles. Similarly, Perkins and Berkowitz (1989) concluded that, after a law change, attitudes and drinking behaviors among both legal and illegal consumers appeared more moderate than before the law change. However, there were significantly ($p < .05$) fewer underage abstainers after the law change than before. The authors explained the more general trend toward moderation as a result of alcohol awareness programming, etc. However, the decrease in underage abstainers could not be explained. Although these studies do not conclusively confirm the reactance hypothesis, they do indicate changes in the percentage of consumers, the percentage of underage abstainers and alcohol-related behaviors that favor the reactance explanation. Gordon and Minor, 1992, have suggested that these types of results reflect a more general consensus among statewide surveys in which expected decreases in underage self-reported drinking has not occurred after law changes (see Gonzalez, 1990; Hughes and Dodder, 1986; Vingilis and Smart, 1981).

Rather than examining attitudes and drinking behaviors before and after law changes, Krithers and Gordon (1992) compared the driving while intoxicated (DWI) arrest rates of legal-age and underage consumers before and after law changes. It was hypothesized that if psychological reactance had caused an increase in underage alcohol consumption, this effect would be seen through increased arrests of underage consumers after law changes occurred. DWI arrest rates for Illinois (IL), Minnesota (MN) and North Dakota (ND) were obtained by examining Uniform Crime Reports. Time series analyses indicated a significant increase in underage (18 to 20 years old) DWI arrests for IL ($p < .05$), with similar but nonsignificant trends noted in MN and ND ($p < .10$ and $p < .15$, respectively). No such trends were present in the 21-23 year old group. The authors interpreted these results as consistent with psychological reactance.

The design utilized in the current study differed from those used in the past. Whereas past studies have made comparisons within drug categories (e.g., pre- and post-testing rates of alcohol consumption), the present investigation made comparisons across drug categories. It was hypothesized that if reactance theory was playing a part in increased alcohol consumption rates secondary to law

changes, underage consumers would imbibe larger amounts of alcohol when compared to their legal-age peers. However, the reversal noted in alcohol consumption trends would not be present when comparing categories of drugs that had not been affected by recent law changes (i.e., those substances that are and have been illegal for use by all age groups). Rather, the illicit drugs would reflect fairly consistent use across both underage and legal-age alcohol consumers, or use would increase gradually with age as national survey data suggests (Johnston et al., 1989).

Method

The Alcohol and Other Drug Use Needs Assessment Survey (AODUNAS)[1] was used to gather data for the current investigation. The self-report survey requested information regarding demographic variables, frequency and quantity of alcohol consumption, frequency of illicit drug use, attitudes toward alcohol and drug use, problems due to alcohol and drug use, and student knowledge of a variety of alcohol and drug awareness programs. Types of drugs surveyed included alcohol, amphetamines, marijuana and crack/cocaine. These drugs tend to be the most commonly used among college populations (Heck et al., 1987; Mason et al., 1987). Students were asked to report their monthly usage of each of these substances. Also, the average number of alcoholic drinks consumed at one time and the number of drinks consumed on the students' last outing were reported. Survey instructions explained the anonymous and voluntary nature of subject participation.

In the spring of the 1990 school year, 2,142 students from 10 postsecondary education facilities located in Minnesota, Iowa and South Dakota completed the AODUNAS. The postsecondary education facilities were selected based on their involvement in the Consortium of Alcohol/Drug Resource Educators (CADRE) which was organized to aid participating postsecondary institutions in alcohol/drug prevention programming. These facilities included one private college, two community colleges, four state universities and three technical schools. The majority of the questionnaires were administered in a classroom setting to students enrolled in general survey or introductory courses as these classes were thought to contain an adequate cross section of the entire student body. Although this method of administration did not ensure a totally random sample of the participating colleges, it did ensure excellent student response rates (>98%). Questions that were not answered by the participants were excluded from the analyses.

Results

The demographic data of the students who participated in the current survey were similar to those previously reported for college populations. For example, 53.8% of the sample was female and 46.2% was male. Of those students responding to the age question (n = 2,138), 66.2% were aged 17-20 and 33.8% were aged 21 or older. Of those students responding to a question regarding credit hours completed (n = 2,121), 53% completed 0-48 hours, 26.1% completed 49-96 hours and 20.9% completed 97 or more hours. In addition to demographic data, substance use patterns were similar to those previously reported. Male subjects of all ages reported higher levels of alcohol consumption than did female subjects. Also, percentages of students using alcohol and illicit substances including marijuana, crack/cocaine and amphetamines were similar to those reported by other authors (Heck et al., 1987).

TABLE 1. Mean ranks and z scores for statistical significance between underage (UC) and legal-age (LC) alcohol consumer groups across all drug categories

Drug	Mean ranks		z Score
	Underage consumers	Legal-age consumers	
Drinks at one time	1,135.85 (n = 1,411)	927.45 (n = 719)	7.48*
Drinks last time out	1,115.52 (n = 1,412)	971.98 (n = 721)	5.15*
Drinks in one month	1,109.04 (n = 1,411)	978.44 (n = 718)	4.71*
Amphetamine per month	1,069.19 (n = 1,411)	1,061.23 (n = 721)	0.79
Marijuana per month	1,064.47 (n = 1,412)	1,071.96 (n = 721)	0.58
Crack or cocaine per month	1,069.11 (n = 1,412)	1,062.87 (n = 721)	1.24

*$p < .0001$, one tailed.

Data were analyzed using the SPSS-X statistical program. Differences between groups on each measure of alcohol and drug use were determined using Mann-Whitney U analyses. Mann-Whitney U analyses were deemed appropriate as the survey data were not normally distributed. The results of these analyses are reported in Table 1. Significant differences occurred between underage consumer (UC) and legal-age consumer (LC) groups on all alcohol consumption measures. The UC group reported significantly ($p < .0001$) higher overall consumption per month, more drinks last time out and more drinks at one time than did the LC group.

For example, whereas 27.2% of the LCs drank occasionally (1-5 drinks per month) and 16.4% were heavy drinkers (21 or more drinks per month), only 19.7% of the UCs drank occasionally and 24.4% were heavy drinkers. Of the LC group, 20.2% reported having six or more drinks the last time they went out as compared to 32.0% of the UC group. Similarly, whereas 16.7% of LCs indicated they usually consume six or more drinks at one time, 30.0% of the UCs reported an average consumption of six or more alcoholic beverages. On the other hand, no significant differences were present between UC and LC

TABLE 2. UC and LC responses to additional questions and t tests for significant differences between groups[a]

Question	Underage			Legal-age			
	Agree (%)	Disagree (%)	n	Agree (%)	Disagree (%)	n	t
Peer pressure to use alcohol	53.5	46.5	1,397	57.6	42.4	694	1.07
Officials look the other way about alcohol use	37.0	63.0	1,378	35.2	64.8	679	−0.60
Attend off-campus activities because alcohol available	87.3	12.7	1,387	78.4	21.6	670	−5.79*
On-campus activities poorly attended because alcohol is not available	68.7	31.3	1,383	67.8	32.3	664	−0.03

[a]In order to facilitate comparison by visual inspection, the percentages presented were derived by combining strongly agree and agree responses into the agree category, and disagree and strongly disagree responses into the disagree category.
*$p < .001$.

groups on measures of marijuana, amphetamines and crack /cocaine use.

Post hoc analyses were conducted on questions included on the AODUNAS that were thought to be related to students' alcohol consumption as it was felt these questions might help address some limitations noted in past research. The questions reflected students' impressions of the peer pressure to use alcohol, the school officials' attitudes toward alcohol use and differential activity attendance based on the availability of alcohol. For each question, students were asked to select from one of four response options: strongly agree, agree, disagree, and strongly disagree. For the independent unequal groups, appropriate t tests were employed to compare the responses of the UC and LC groups. The results of these analyses are presented in Table 2. Significant differences ($p < .01$) were present between UC and LC groups on one of the four questions: when compared to the LC group, UCs more strongly agree that "a significant number of students attend off-campus activities" due to the availability of alcohol. A similar level of agreement was present between the two age groups on questions inquiring about peer pressure to use alcohol, poor attendance of on-campus activities due to the absence of alcohol and the tendency of the institutions' officials to "look the other way . . . about alcohol use."

A final group of questions inquired about students' use of 11 alcohol/drug awareness resources available on their campuses. Response options included educational programs about alcohol/drug use, abuse and effects, peer counseling programs, nonalcoholic bars, and seminars in college classrooms, among others. Students were requested to indicate their utilization of these resources by marking all of those to which they had direct exposure through participation. The total number of programs was summed for each respondent and this sum was used as an index to compare the UC and LC groups. A significant difference ($t = 2.48$, 2,136 df, $p < .01$) was present between the UC and LC groups on this measure with UCs having been exposed to more types of prevention programs than LCs (mean [± SD] = 3.1 ± 4.0 and mean = 2.6 ± 3.8, respectively).

Discussion

The current results are consistent with psychological reactance theory as it pertains to the influence alcohol consumption law changes have had on consumption rates of underage college students. As predicted, the alcohol consumption of underage students was significantly higher than their legal-age counterparts. However, no difference was noted between the age groups on measures of other drugs that had not been recently affected by law changes. This difference between alcohol consumption and other drug consumption rates is in sharp contrast to reported consumption trends that have occurred over the past three decades, in which alcohol and other drug use has either increased or remained relatively stable with increasing age and years in college.

A number of limitations with previous studies have been cited by Gordon and Minor (1992) and Engs and Hanson (1989). Although the results of Gordon and Minor's (1992) study were consistent with the reactance theory hypothesis, the authors suggested that "the increase in alcohol consumption reported . . . by students under 21 years of age may have been an attempt to manage an impression of autonomy and may not have been an accurate reflection of their current alcohol consumption" (p. 174). Their study may have been particularly susceptible to this type of response set as their questionnaire included questions dealing specifically with law changes and drinking rates before and after these law changes. As the underlying nature of the current survey was not readily apparent to the students, their tendency to respond in a manner that would project autonomy may have been reduced.

In addition to the aforementioned limitation inherent in their study, Gordon and Minor (1992) cite as support for the autonomy explanation the apparent discrepancy between underage students' self-reports of alcohol consumption, which appear to have remained stable or increased after law changes, and the apparent decrease in driver fatalities among this user group following law changes. However, several lines of evidence make this interpretation questionable. First, some of this discrepancy may be due to inadequate methodology employed in the study of

alcohol-related traffic fatalities. For example, while Wagenaar (1981) concluded that traffic fatalities had decreased after law changes, Bolotin and De Sario (1985) reexamined Wagenaar's data and found that the percentage of alcohol-related accident fatalities had actually increased in relation to the total vehicle crashes reported for the 18-20 year old age group. Second, Vingilis and De Genova (1984) validly point out that the alcohol relatedness of vehicular accidents is based on police impressions, which are subjective. These impressions may themselves be subject to biases resulting from the changes in DWI and alcohol consumption laws.

Third, other authors (e.g., George et al., 1989) suggest that underage students have actually shifted their drinking locales (e.g., from licensed to unlicensed facilities, from bars to private residences, etc.). Some confirmation of this report was obtained in the current study as the underage students believed more strongly that off-campus activities were attended because of the presence of alcohol. These changes in drinking locations may at least partially account for the decrease in alcohol-related crashes, as students may not be driving home from drinking establishments at closing time after becoming intoxicated. Fourth, the report by Krithers and Gordon (1992), which employed DWI arrest rates, indicates that at least in one state (and possibly in three states), underage alcohol consumers arrested for DWI increased significantly after law changes. While the relative merits of DWI arrest rates versus traffic fatalities as valid indicators of alcohol consumption could be argued, the point here is that at least one statistic reported by law enforcement agencies would appear to indicate increased consumption among underage individuals.

Finally, in Gordon and Minor's (1992) study, they noted that students did not report higher drinking 1 month after the law change, whereas 13 months after the law change, the predicted increase in consumption had occurred. If students had been trying to project an autonomous self-image, it would be expected that this effect would have been present on the initial survey. Rather, after the students had opportunities to react to the law changes by increasing their drinking, self-reported drinking increased.

Based on these factors, increases in self-reported drinking probably reflect an actual increase in alcohol consumption among those affected by law changes. This increase could be occurring concurrently with decreases in actual and/or reported driver fatalities among the underage group. Because of this, caution should be used when interpreting a discrepancy between driver fatality data and self-reported alcohol consumption as an indication of the validity of one or the other of these measures. And to suggest that college students are projecting an autonomous image rather than reporting actual increases in consumption based on this discrepancy is questionable. Therefore, there does not appear to be an adequate basis for a projected autonomy interpretation of the current results.

Engs and Hanson (1989) have suggested two other influences that may account for the observed reversal in alcohol use trends: (1) an "unfavorable evaluation of the influencing agent" (p. 1085); and/or (2) "an inadvertent communication of messages counter to the one intended by the legislators" (p. 1085). In their study, Engs and Hanson (1989) could find no support for these alternative explanations, although they did not specify the procedures they used to test them.

In addressing the concerns of Engs and Hanson (1989), it should be pointed out that both of their alternative explanations, if valid, would not discount the results of their study or those of the current investigation. Their first alternative explanation suggests that the focus of underage students' reactance would be against the legal authorities or institutions responsible for creating, implementing and enforcing the new laws, rather than against the laws per se. To distinguish between the legislators and other officials on one hand and the laws on the other may be valid. However, this distinction seems to have little bearing on the current results as the behavior of concern (i.e., alcohol consumption by underage students) would probably not be altered by the focus of the reactance in this particular situation. Additionally, in either situation, reactance continues to be a valid explanation in accounting for the observed differences in the pattern of alcohol use as compared to other drugs.

The validity of their second explanation also does not have direct implications for their results or those of our investigation. This is because, even if underage students continued to perceive that it was legitimate to consume alcohol, this probably would not have the effect of increasing their consumption relative to legal-age peers. Rather, one would expect their consumption to continue at a rate similar to that observed prior to the new legislation and, therefore, a pattern of alcohol consumption similar to their use of other drugs and to legal-age students' use would be expected. On the other hand, this explanation may account for the results of those studies that compare pre- and post-drinking rates and do not find expected decreases after law changes because little decrease in consumption would be expected if a large number of underage students perceived that it was still acceptable to consume alcohol.

The results of our investigation indicate that a large minority of students do perceive that their "institutions' officials (outside the Drug Education Task Force) look the other way about alcohol use." Little difference was present between the UC and LC groups in regard to this question, with 63.0% and 64.8% disagreeing, and 37.0% and 35.2% agreeing, respectively. The fact that over one third of the student body perceives that college officials are not concerned with enforcing alcohol laws is alarming, as it probably contributes to a lack of decrease in the overall student alcohol consumption rate. However, one

would not expect this perception to exert a differential effect on alcohol consumption so as to cause an increase in the alcohol consumption of younger students, as the perception is consistent across both student groups. Therefore, the inadvertent communication of counter messages does not appear to account for the present results.

Parenthetically, these results are somewhat surprising when one considers the extensive effort and resources being put into prevention programming. One would expect that these efforts would initially be noted among younger individuals, as they have had more opportunities to participate in these types of programs and are expected to have had more exposure. It seems that reactance is occurring because alcohol is still considered by many students to be an integral part of the college environment. This attitude can be seen through students' responses to ADDUNAS questions in which 36.4% perceive that the institutions' authorities look the other way about drug use, 54.9% feel there is peer pressure to use alcohol and 68.4% believe that on-campus activities are poorly attended because of the absence of alcohol. These attitudes are similar across legal-age and underage consumers, suggesting consistent perceptions of alcohol and its part in college life across these groups. It is not difficult to understand how younger students who are prohibited from drinking while holding similar beliefs about alcohol as older students may tend to react against this prohibition strongly and, as a result, consume more alcohol.

A more general factor that is important to consider, and that was previously alluded to, is the role that changing social norms might exert on the drinking practices of underage consumers. After contemplating the possible effect changing social norms would have on alcohol consumption trends, we have concluded that drinking should have decreased among younger students for the following reasons. In general, the prevailing social climate is becoming more negative in regard to the alcohol consumption of underage individuals. Alcohol/drug prevention programming, alcohol/drug education and a plethora of other "just say no" type messages/programs are being directed at young people, some beginning as early as grade school (Office of Substance Abuse Prevention, 1992a). The intention of these messages is to decrease alcohol/drug use by targeting students directly. However, a recent report suggests that these efforts may be having a broader effect as colleges and universities are developing new policies that limit the beer industries' presence by curtailing on-campus company advertising, party sponsorships, sports sponsorships, etc. (Office of Substance Abuse Prevention, 1992b). It is not unreasonable to assume that, as prevention efforts have increased during the past decade, the younger individuals in our study have had equal if not more exposure to the new values these programs convey. (In the current study, which was conducted at the collegiate level, younger individuals report participating in significantly more prevention programs than did their older peers.) Also, they may have been exposed to these new values at an earlier age. As a result, these values are at least as likely if not more likely to be incorporated at an earlier age and in this way become a more significant part of their value systems. Based on this reasoning, a greater decrease in general consumption is expected as a result of changing social norms, with this trend being the most evident in younger individuals. However, the opposite trend was noted in our study, suggesting that something other than changing social norms is influencing consumption in the underage group.

The design employed in the current investigation has a number of limitations with the most obvious being that comparisons between students' drinking rates prior to and after law changes cannot be directly made. In addition, it should be noted that the results and the conclusions drawn from these results are applicable only to college students. Finally, as with all survey research in which a totally random sample of the population under investigation is not obtained, sampling error is another variable that may account for the current results.

On the other hand, this type of experimental design has several advantages in comparison to previous methods. First, effects due to subject attrition and maturation are ruled out. Second, it is not sensitive to overall fluctuations in drinking rates among college students. For example, if the rate of college student alcohol consumption was decreasing in general as some authors would suggest (O'Malley et al., 1988), this effect would be expected to influence all students similarly and the pattern of drinking would remain the same across these age groups. Finally, the anonymous nature of the survey helped to ensure that all participants answered honestly without fear of possible negative repercussions occurring based on their admission of participation in illegal activities. The present investigation has also attempted to address some limitations of past research, including those mentioned by Gordon and Minor (1992) and Engs and Hanson (1989). Additional consideration has been given to the possible impact changing social norms might have had on the current results.

The body of evidence suggesting that alcohol consumption among underage consumers has increased relative to their legal-age peers following law changes continues to accrue. More specifically, past research has shown that, prior to the enactment of laws changing the legal drinking age to 21, the number of alcohol consumers increased with age and year in college. Following the change of the legal drinking age some research has indicated this pattern has reversed, with college students under the age of 21 consuming relatively more alcohol than those students of legal age. In a number of reports this increase in consumption has been attributed to psychological reactance among underage consumers. These reports are notable in that they have employed a variety of methodologies and,

in some cases, have used large representative samples. The current results provide further support for reactance theory, as the only differences in drug use noted between underage and legal-age groups was on the drug that had been recently affected by law changes (i.e., alcohol). Again, this discrepancy in alcohol use as compared to other drug use is in contradiction to those surveys conducted over the past 30 years that have suggested alcohol consumption increases gradually with age and years in college. Although other explanations may also account for the observed differences, reactance theory appears to be one of the most viable. If reactance theory is to be discounted, future research must explain the apparent reversal in collegiate drinking patterns.

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Note

1. Copies of the ADDUNAS may be obtained from Charles Myrbach, Department of Research Institutional Grants, RM A5325, Southwest State University, Marshall, Minn. 56258.

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COMMENTS TO ASSEMBLY COMMITTEE ON EXCISE TAX AND FEES

September 30, 1993

MR. CHAIRMAN AND COMMITTEE MEMBERS: My name is David Rice. I was born and raised in Sparta and I have practiced law there for the last 23 years. Before that, I spent a year as a law clerk for now Chief Justice Heffernan in the Wisconsin Supreme Court. I have served as the Sparta City Attorney and Assistant City Attorney. I have been a part-time United States Magistrate for the Federal District Court here in Madison. I have also served on legislative and Supreme Court committees as a representative of the State Bar of Wisconsin. I appear here today however, as a parent. Nonetheless, my legal experience has been critical in the formation of my views on the subject matter before you.

One of my most eye-opening experiences was my defense of a farmer and his insurance company in a wrongful death claim three years ago. The farmer was sued for the death of an 18 year old boy who fell from the farmer's haymow during a beer party. The party was organized by the farmer's 16 year old son while the parents were out of town. Beer was provided by a 20 year old, and several dozen local high school students, ages 14 to 19, were in attendance.

During my investigation of that case, I learned that a party of this type goes on somewhere around our community nearly every weekend of the year. The parties take place at homes where parents are gone for the weekend, in fields or wooded areas of a friend's farm, and at stone quarries and or other secluded places. Many who attend are 18 to 20 years old. Many others are 14, 15 and 16 year olds. The older boys and girls have very little concern for the fact that

younger teenagers are present. All of them are in the same boat legally -- underage drinkers. This weekend party scene is repeated in many, perhaps most, Wisconsin communities. On a typical summer night, Main Street of Sparta and Tomah are literally filled with groups of teenagers, adults and juveniles with nothing to do and no place to go. Mention the word "party", they will be there -- 14 year olds and 20 year olds together.

I am the father of two sons, ages 18 and 16. One is a freshman in college, the other a high school junior. During the last three years, I have had to face the same problem faced by the parents in the lawsuit I defended. My sons regularly tell me of parties that are planned or have just occurred. I have done my best to keep my sons away from them. I don't pretend to have been particularly successful.

High school graduation has been an eye-opening experience for me. Almost every family has a graduation party. For several years, I attended other families' parties. The parents organize the party and are always present. I have seen 18 years old graduates drinking beer at nearly every party. Underclassmen are usually present and I have seen them drink beer too. The parents look the other way. In years past, I criticized these parents for not supervising their parties better.

This year it was my turn. We had a graduation party and I allowed my own 18 year old son to drink. Better there than off in a field somewhere. Other parents were there with their children. They allowed their children to drink too. Underclassmen were present. I looked the other way, but I am sure many of them drank.

Why are we law abiding, good citizen, Wisconsin parents allowing our 18 year old children to drink? The answer is simple. We parents, admit it or not, do not believe in the 21 year old drinking law. When we were 18, we could go into bars and we did. Contrary to some popular opinion, our children are no better or no worse than we were at their age. In fact, they are considerably more responsible about drinking and driving than we were, thanks to their awareness of the severe penalties for drunken driving.

The consequence of our present 21 year old law is to push 19 to 20 year olds out of the bars and into social settings with juveniles. The hope that 19 year olds will not drink just because it is illegal, is hardly more than a dream. Eighteen year olds were drinking when my dad was a boy during Prohibition. They were drinking when I was a boy and it was legal. They have been drinking for the last ten years, even though it has been illegal.

During the last seven years, however, as during Prohibition, we have lost control of drinking by young people. This has occurred because we have pushed young adults out of licensed premises and into uncontrolled fields, homes and apartments. Unlike the licensed tavern premises, there is no legal control to prevent juveniles from attending the apartment parties of their older friends.

The present 21 year old law is much like the Volstad Act during Prohibition. The law represents a moral and social judgment which is being imposed upon our citizens without regard to its side effects. The side effects of Prohibition were bootlegging and organized crime. The side effect of the 21 year old drinking law is uncontrolled teenage drinking.

The Bill which you are considering will put drinking by young adults back into bars and remove it from unsupervised settings. It is likely to reduce the number of weekend beer parties simply because it will separate young adult drinkers socially from juveniles. It will make the weekend beer party for a 14 or 15 year old much harder to find.

I urge you to adopt this Bill, regardless of whether the United States Congress changes the highway aids law. The Federal law is a form of blackmail which penalizes states for developing an intelligent approach to drinking by young adults. The law may be well intended, but like Prohibition, its negative side effects were not expected, and they far outweigh its benefits. During the last ten years, the term "party" has become the most well understood word in the teenage vocabulary. It is time that we take a bold step to get things back in control. If we wait for the federal government to take the lead, we can expect that nothing will change. Change in the Federal law will come only if we show our federal representatives that the subject is too important to submit to their order on a law they don't have to enforce. I am not one to throw away money, but if it temporarily costs us highway funds to restore some common sense to the teenage drinking scene, it is well worth the sacrifice.

Thank you for the opportunity to address your Committee and best wishes.

J. David Rice
112 West Oak St.
Sparta, WI 54656
(608) 269-2174

DATE September 30, 1993

TO: Members of the Assembly Excise and Fees Committee

FROM: Tim Kalies, Government Relations Specialist
Wisconsin Restaurant Association

RE: Support for Assembly Bill 259, lowering the legal drinking age to 19.

On behalf of the 6000 members of the Wisconsin Restaurant Association, I wish to register strong support for Assembly Bill 259, lowering the drinking age from 21 to 19. We take this stand for the following reasons:

1. Most 19 year-olds are responsible, functional adults. By the time an individual reaches 19 years of age, they have graduated from high school, held jobs to support themselves and/or went on in pursuit of higher education. Some are in the armed forces defending their country. Some are married and have families. Many have voted. It is a double standard that a society that expects so much of this age group and considers them citizens in every other way, to not allow them the opportunity to enjoy a cocktail, a glass of wine, or a beer with a meal.

We admit there are abusers of alcohol at this age. There are abusers at every age. We defend none of them. We think it is unjust however, to penalize the vast majority of 18-20 year-olds who are responsible adults.

2. A 19 year old drinking age is safer for young people.

Raising the drinking age to 21 has not been an effective deterrent to young people drinking. What it has done is shift the location where young people drink from supervised restaurants, lounges and clubs to unsupervised house parties and other out of the way locations. In these situations young people are actually encouraged to drink more. Here's why: Unsupervised parties promote both attendance and consumption because of economies of scale. They purchase in quantity, which allows each person to consume more, at little or no cost. In supervised establishments there are controls put in place by both management and the customer. In this age group, additional cost can be an effective regulator of consumption as well.

31 SOUTH HENRY STREET
SUITE 300
MADISON WI 53703 3[illegible]0

3. A 21 year old drinking age places an unfair burden on the license holder.

It is obvious that young people continue to drink. It is also obvious that some continue to drink in licensed establishments. No amount of security will eliminate this completely, despite the best efforts of a business. This places a tremendous burden on operators who not only have to cope with keeping underage people out of their business, but also with increasingly sophisticated methods of false IDs. This is more prevalent with our members in cities with college campuses with large concentrated numbers of 18-20 year olds.

4. A 21 year old drinking age causes lack of respect for the law.

Enforcement of the law cannot be consistent because of the size of the problem. The young people that are caught for violations can pay big fines and sometimes lose their drivers license. Yet, those same people will attend a similar event the following week. Why? Because this system has cemented the unsupervised party as the prime social activity of young people.

In conclusion, The Wisconsin Restaurant Association would like to see the drinking age reduced to 19 once again. However, we also continue to believe that this must be done in a manner which promotes responsible behavior. WRA supports a stipulation that one must present a valid high school graduation certificate before being eligible for an ID for drinking purposes. We would also support a border law that would make it illegal for other than Wisconsin residents or members of the armed forces to drink in Wisconsin if they are too young to drink in their state of residence.

Thank you for your consideration, and for the opportunity to speak to you today.

ADVOCATES
FOR HIGHWAY
AND AUTO SAFETY

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D Richard McFerson
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Nationwide
Insurance Cos.
Andrew McGuire
Executive Director
Trauma Foundation
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Judith Lee Stone
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Gerald Mastman
Kemper National
Insurance Cos.
Robert Vagley
American Insurance Association
Marie T. van Luling
Aetna Life and Casualty

TESTIMONY OF

JUDITH LEE STONE
PRESIDENT
ADVOCATES FOR HIGHWAY AND AUTO SAFETY

before the
COMMITTEE ON PUBLIC WORKS & TRANSPORTATION
SUBCOMMITTEE ON SURFACE TRANSPORTATION
HEARINGS ON THE NATIONAL HIGHWAY SYSTEM

MARCH 3, 1994

Thank you, Chairman Rahall. I am Judith Lee Stone, President of Advocates for Highway and Auto Safety. Advocates is a coalition of consumer, safety and insurance organizations dedicated to the passage of highway and auto safety laws and policies to reduce death and injury on America's highways, and economic losses due to motor vehicle crashes. I am accompanied by Nancy Kessel, a member of the West Virginia House of Delegates.

I thank you on behalf of Advocates for conducting this hearing and allowing us to testify on safety issues related to the National Highway System. I will summarize my remarks and ask that my entire statement be inserted in the record.

While the issue of health care reform is being debated in several other committees this year, your own committee, Mr. Chairman, holds the key for what could be a significant source of savings in health care.

As Dr. Miller so ably illustrated in his testimony, injury exacts a high toll. Injury is the largest cause of medical spending for Americans age 5 to age 50. In 1992, medical spending on injury treatment averaged $288 per American. Injury caused $70 billion, or 13%, of all medical spending in 1992, excluding nursing home care and insurance claims processing costs.

Motor vehicle crashes account for the largest class of severe injuries.

Thus, if we are effective in preventing motor vehicle-related deaths and injuries, we can see substantial savings in medical costs and lessening of the burdens on our medical, rehabilitation, and public assistance systems.

Congress recognized this in 1991 when the House and Senate included virtually identical provisions in ISTEA encouraging states to adopt safety belt and motorcycle helmet use laws. And this provision is working. No other provision in ISTEA has worked so effectively and so quickly to save lives and decrease health care costs.

777 North Capitol Street, NE Suite 410 Washington, DC 20002 Tel: 202/408-1711 Fax: 202/408-1699
"Saved by the Air Bag" Club 800/659-BAGS

That is why we strongly support Section 153 -- it has proven successful in encouraging states to adopt proven injury prevention measures.

With me today is Nancy Kessel, who will be receiving a "Safety Leader Award" from Advocates for her dedication in fighting for a safety belt law in your state of West Virginia, Mr. Chairman. We have asked Delegate Kessel to explain why, based on her experience in West Virginia, this committee should oppose any efforts to undermine Section 153.

Truck Safety

We appreciate the leadership you and this committee demonstrated, Mr. Chairman, in halting the expansion of longer, heavier vehicles on our roads in ISTEA. We urge you to continue that commitment by extending the current Interstate weight limit to all NHS highways.

Trucks conforming to an 80,000 weight limit will be safer and will lessen pavement damage. Studies show that trucks weighing significantly in excess of 80,000 pounds have a greater propensity to roll over in crashes, require longer stopping distances, and have a greater chance of suffering brake loss on mountain grades that result in downhill "runaways."

On another truck safety issue, much has happened since this committee last considered the Federal Highway Administration (FHWA) proposal to prohibit radar detector use by commercial motor vehicle operators.

The agency issued a rule banning radar detector use in these vehicles, and the prohibition took effect in mid-January. FHWA apparently believes that additional studies were not needed.

Many of the nation's opinion leaders support the agency's action. Since December, we have documented dozens of editorials from major newspapers around the country in support of the ban. As the Scranton (PA) Tribune said, "the sole purpose of having a radar detector is to break the law." Attached is a list of these editorials.

We urge the committee to support the FHWA rule and leave it out of the debate surrounding the National Highway System.

NHS and Work Zone Safety

During the debate on ISTEA, your subcommittee recognized the importance of work zone safety. Each year, hundreds of motorists and scores of workers die in highway work zone crashes. Highway construction is now one of the most dangerous occupations because of this alarming trend. This committee recognized this alarming trend by including Section 1051 in ISTEA, which directs the U.S. DOT to develop and implement a work zone safety program and to improve data collection efforts on this issue.

Yet, more than two years after enactment of ISTEA, no rulemaking has emerged, even though ISTEA has already led to a surge in infrastructure spending for reconstruction and rehabilitation projects. As National Highway System projects get underway, we anticipate an even greater number of such projects. The large volume of NHS-related reconstruction and rehabilitation work forecasted makes the problem of highway construction work zones even more urgent.

NHS projects will generate many additional thousands of miles of highways, and with them work sites where millions of vehicles will flow past thousands of workers. These dangerous work site conditions need modern traffic and safety engineering measures, not regulations that were written nearly 20 years ago and are urgently in need of updating.

We strongly urge the Committee to assure that highway work zone safety management regulations are developed through public rulemaking before the wave of ground-breakings we will see under the NHS.

The traveling public and highway workers deserve adequate, modern safety measures. We should not launch a major reconstruction and rehabilitation effort until such measures are in place.

NHS and Design

I would like to raise one other issue for your consideration as you craft the National Highway System (NHS).

The National Highway System will consist of approximately 50,000 miles of Interstate and limited access facilities and more than 100,000 miles of other types of roads; these are the roads that will receive the focus of Federal dollars.

Yet most of these roads -- the more than 100,000 miles that are neither Interstate nor limited access -- are governed only by state standards. That is, all major arterial highways without full access control (even multi-lane divided facilities), undivided minor arterials and some major collectors will be receiving a large share of Federal highway funds with little or no Federal oversight and guidance.

The NHS is envisioned as leading to improvements in the design, safety and capacity of the non-Interstate, non-limited access roads. Even though ISTEA prohibits adding additional lanes (other than HOV lanes), these roads will see enormous increases in capacity.

It only makes sense that, as these thousands of miles of highways are undergoing major rehabilitation or reconstruction to bring them into a national system, they should be designed to a truly national standard, rather than varying from state to state.

Leaving the design choices to state discretion is likely to result in highways with design deficiencies that violate driver expectations and cause crashes.

Although we realize that most of this mileage will not be brought up to Interstate standards, we believe that the Federal government should have a more direct guidance and oversight role in the choice of standards used by the states to rehabilitate and reconstruct these non-limited access highways.

A genuinely national highway network calls for a more uniform administration through Federal design standards and direct Federal oversight. This is what the name implies and this is what motorists will expect and deserve. To do less is a deep disservice to the motoring public.

We also ask the Committee to anticipate the impact when these roads are upgraded. As highways see widening of lanes and shoulders, added interchanges and even auxiliary lanes, these improvements

will make these roads much more attractive as major thoroughfares, particularly for commercial vehicles.

Heavy trucks, as a percentage of traffic, may double or triple on many of these roads in a short period of time.

Also, travel speeds will increase, a phenomenon well-known among design and traffic engineers that results when alignment is smoothed out and lanes and shoulders are widened. We are concerned that this portends increased levels of speed violations and more crashes.

Heavy trucks are disproportionately involved in fatal and serious injury crashes, especially when trucks exceed about 10% of the traffic stream. Thus, serious crashes involving big rigs are likely to go up on some NHS roads.

We believe these negative consequences can be anticipated and addressed before design plans are approved, through closer Federal administration of the design choices for renovating these highways.

If we are not careful, the mobility benefits we hope to reap from NHS will come at the expense of public safety. In addition, the design selections made can create congested highways where none existed before.

We urge the Committee to assure that the vision it presents of the National Highway System includes adequate design and Federal oversight to assure that our Federal gas tax dollars create a truly safe, truly national highway system.

Advocates looks forward to working with you, Mr. Chairman, Chairman Mineta, Representative Shuster and Representative Petri in supporting the vital safety programs in ISTEA and in future legislation. We'd also like to express our appreciation for the hard work and responsiveness of your committee and subcommittee staff.

Thank you for the opportunity to testify on these important issues. I would be happy to answer any questions you may have.

Editoriais in Support of
Radar Detector Ban in Commercial Vehicles

Tucson (AZ) *Citizen*
Bridgeport (CT) *Connecticut Post*
Danbury (CT) *News-Times*
Norwich (CT) *Bulletin*
Gainesville (FL) *Sun*
Jonesboro (GA) *Clayton News/Daily*
Chicago (IL) *Sun-Times*
Chicago (IL) *Tribune*
Rock Island (IL) *Argus*
Anderson (IN) *Herald-Bulletin* (reprinted from Albany *Times Union*)
Muncie (IN) *Evening Press*
Valparaiso (IN) *Vidette Messenger* (reprinted from Albany *Times Union*)
The Des Moines (IA) *Register*
Hyannis (MA) *Cape Cod Times*
Springfield (MA) *Union-News*
Worcester (MA) *Telegram & Gazette*
Biloxi (MS) *Sun Herald*
Jackson (MS) *Clarion-Ledger*
St. Joseph (MO) *News-Press*
Lincoln (NE) *Journal*
Omaha (NE) *World-Herald*
Camden (NJ) *Courier-Post*
Trenton (NJ) *Times*
Albany (NY) *Times Union*
Ogdensburg (NY) *Journal* (reprinted from Schenectady *Daily Gazette*)
Schenectady (NY) *Daily Gazette*
Asheville (NC) *Citizen-Times*
Durham (NC) *Herald-Sun*
Fayetteville (NC) *Observer-Times*
Franklin (NC) *Press*
Greenville (NC) *Daily Reflector*
Hickory (NC) *Daily Record*
Nashville (NC) *Graphic* (reprinted from *The Warren Record*)
Raleigh (NC) *News and Observer*
Cincinnati (OH) *Post*
Massillion (OH) *Independent*
Warren (OH) *Tribune Chronicle* (reprinted from Albany *Times Union*)
Johnstown (PA) *Tribune-Democrat*
Lehighton (PA) *Times News*
Meadville (PA) *Tribune*
Scranton (PA) *Tribune*
Wilkes Barre (PA) *Times Leader* (reprinted from Albany *Times Union*)
Charleston (SC) *Post and Courier*
Wichita Falls (TX) *Times Record News*
Fredericksburg (VA) *Free Lance-Star*
Roanoke (VA) *Times & World-News*
South Boston (VA) *Gazette-Virginian*

Testimony given to Surface Transportation Committee
Re: Waiver to Wisconsin for Two year Pilot Program
From: Charles Taylor, Flamingo Restaurant, 636 State St., Madison,

I want to begin by thanking you for holding this hearing. You have rejuvenated my belief in the system. I've been told for four or five years to give up on this issue, so I am extremely appreciati to my Congressmen from Wisconsin on this committee. I truly believe it is time to reevaluate the 21 year old drinking age. Certainly the statistics show that the roads are safer than ever and yet the negative fallout from the change needs to be addressed.

"They"say once you get to D.C. you lose touch with the home district. "They" say you lose touch with reality. I'd like to atte t to reconnect you with the reality of your actions when you,effective , passed a 21 drinking age. Actually, I wish the age had been dealt a a separate issue and we might not even be here today. It was a very narrow vote in Wisconsin in 1986, and the key issue was not highway safety, it was the fear of losing highway funds. This type of blacl il is a poor way to govern, and it seems to be used more and more ofte lately. Speed limits, seat belts, drinking age, cycle helmets. Wh do you resort to withholding funds if states don"t comply? The rea y is more issues need to be resolved at home. At any rate, I'm sure you will find our proposal reasonable and fair, and I appreciate yo attention. We simply ask that Wisconsin be granted a two year waiv from the loss of highway funds in order to track the safety of the roads and behaviors of the young adults affected. There is so much more to the issue than the D.O.T statistics, although I believe the

actually confirm our contention that the age should be lowered.

There isn't a municipality anywhere that can say that the age change didn't create an enforcement nightmare. So much so, that the Madison City Council and the Madison Police Department have gone on record supporting the change back to 19. They need the manpower and resources to deal with the real problems of a growing urban area. They don't want to see Madison fall the way of other nearby metropolitan cities. What the Federal Government effectively did was to force this large group of young adults out of the clubs, dance halls, and some eateries and onto the street. They were left with no place to congregate and socialize. Is there any wonder why some from this group have gotten in serious trouble? Of course the smarter and wealthier ones simply were able to buy or produce fake ID's. I confiscated 400 fakes in 8 months after the change. One enterprising young law student dropped out of the U.W. as he wa making too much money selling these fakes. Unfortunately, he will find it hard to get a law license with a felony conviction. The underage apartment and fraternity parties, the $3.00 a cup-all you can drink binges, the hidden parties in quarries, etc. have gotten so out of hand that police fines approach $600 for consumption, and $2000 for hosting these parties. Was this your intent when you raised the age? This enforcement problem certainly has created saf concerns on and off the highways. By putting these people in licen supervised establishments, much of this concern will be resolved.

While I have the opportunity, I wanted to tell you the thing that was hardest to deal with regarding the age change. It wasn't the 35% loss in revenues(much of this in food sales), nor was it be presumed that I had been trained to be of secret service caliber to detect false ID's and then become an enforcement officer to deal wi these criminals. The hardest thing for me to deal with was the att de

and behavior of the local government and the police force. Despite having run a successful and problem free restaurant and bar, I was treated like a bootlegger. My credibility and respect was lost overnight. My trust was challenged on a daily basis. You passed a law and I became a second class citizen. There was no excuse for this behavior. I still deeply resent the way I was treated. It has taken another five years to regain that standing in the community. And only as a result of the police and City recognizing that we were responsible business people.

But to the issue of drinking and safety. Not even D.O.T. would dispute that raising the age has changed any drinking habits, only where it's done. Liquor law violations have tripled since the change So, if more people are drinking, and often more, and often at an earlier age, why are we finding fewer crashes with this age group? The answer is really arrived at by looking at the numbers in all age groups. Regardless of the drinking age, people in all age groups are responding to education efforts to staying out of their cars whe they've had too much to drink. Tougher drunk driving laws, no plea bargaining, awareness efforts, designated driver programs, and free cab rides sponsored by the licensees are the reasons the roads are s er. It has nothing to do with the drinking age.

As long as alcohol is legal, we need to educate our young peopl on the proper use and problems of abuse. And I believe if you searc your memories to your teenage and of your education, you will agree with me. Preaching abstinence from alcohol until 21 has led to bing drinking in unsupervised settings where the consequences have been increased vandalism, altercations, date rapes, and death. If your real concern is safety, let's put millions of dollars into speeding

enforcement. In Wisconsin, only 6% of crashes were blamed on alcohol in 1992, while 14% were blamed on speed alone. It's time to stop the discrimination of our young adults aged 19 and 20. By granting the waiver, these people will prove that they are more responsible than their counterparts over 21. If not, I guess you can continue to hand out tax money in D.O.T. grants like the Madison Police just received for raiding underage parties and stinging Taverns. If my assumptions are wrong, the waiver ends, and we won't need to debate the issue anymore.

ADDITIONS TO THE RECORD

AMALGAMATED TRANSIT UNION

5025 WISCONSIN AVE., N.W. WASHINGTON, D.C. 20016-4139 (202) 537-1645

March 29, 1994

The Honorable Nick Rahall
United States House of
Representatives
Washington, DC 20515

Dear Chairman Rahall:

On behalf of the Amalgamated Transit Union, I have enclosed a copy of our organization's correspondence with accompanying documents to the Federal Transit Administration (FTA) in support of its "Notice of Proposed Recision of Private Enterprise Participation Guidance", issued by the Agency on November 19, 1993.

We would appreciate these materials being incorporated into the Committee's record in connection with the ongoing hearings concerning the "National Highway System and Ancillary Issues." In particular, we wish this to supplement the record developed at the March 3, 1994, hearing during which Panel No. 10 addressed various issues surrounding the proposed change in the FTA's privatization rules and regulations.

We have enclosed correspondence dated January 24, 1994, from our Union to the FTA along with a series of documents including "The Failure of Transit Privatization"; "A Cost Analysis of the COMSIS Privatization Proposal", prepared by Professor Elliott Sclar, discussing issues surrounding a "privatization" study of bus service in Boston, Massachusetts, as well as a more generalized report entitled "The Policy Issues in Privatizing MBTA Bus Routes".

Finally, we have enclosed for the Committee's review a recent policy brief prepared by the AFL-CIO Transportation Trades Department discussing the proposed recision of the FTA's transit privatization rules along with a recent letter from Professor Sclar discussing his current findings with respect to certain cities' privatization experiences, notably Denver, Colorado, in which he concludes that the contracted-out service is costing more rather than less.

In closing, we appreciate the opportunity to submit this information for the record and look forward to continuing our close cooperation with you and the Committee as it explores the many issues surrounding the development of the National Highway System and those affecting the mass transportation industry as well.

If you have any questions concerning these materials, please do not hesitate to contact my office.

Sincerely,

Robert A. Molofsky
Legislative Director

/amw
Enclosures

cc: Roger Slagle, Surface Transportation Subcommittee
James Zoia, Surface Transportation Subcommittee

Amalgamated Transit Union
5025 Wisconsin Ave., N.W., Washington, D.C. 20016-4139
202-537-1645
Office of the International President

January 25, 1994

Gordon J. Linton, Administrator
Department of Transportation
Federal Transit Administration
400 7th Street, S.W., Room 9328
Washington, D.C. 20590

RE: Docket No. 93-B
Private Enterprise Participation

Dear Mr. Linton:

The ATU, representing 160,000 employees in the urban mass transit, over-the-road and school bus industries is pleased to submit the following comments in full support of the "Notice of Proposed Recision of Private Enterprise Participation Guidance" issued by the Federal Transit Administration (FTA), on November 19, 1993.

As amplified below, we believe the new policy issued in the context of the comprehensive planning procedures mandated by the Intermodal Surface Transportation Efficiency Act of 1991 properly reflects the joint policy goals of local control and flexibility, as well as federal neutrality with respect to the choice of public or private transit providers embodied in the Act. At the same time, it significantly reduces burdensome paper work and other requirements, while still retaining options for private enterprise participation if it fits in with local transit plans and community mobility needs.

Indeed, by rescinding the 1984 and 1986 private enterprise participation circulars, and the related Section 16 and 18 privatization requirements, the FTA has properly removed itself from what should have always been a local decision free from federal controls and mandates.

Through this program change, the FTA has addressed a fundamental flaw in existing federal transit policy. Specifically, the agency seeks to correct significant problems encountered as a result of FTA policies that began in 1984 by circular announcing a policy "to insure that local decision-makers fully and fairly consider the private sector's capacity to provide needed transportation services."

After a decade, the new FTA has concluded that the premise upon which these policies were born are, simply stated, wrong and contrary to the best interests of the transit industry, commuters and the taxpayer. Clearly, these policies resulted in placing undue pressures on local transit grant recipients, often at the expense of vital transit services. A 1989 study by the Economic Policy Institute concluded that the 1984 circular was "a deliberate attempt to use the power of the federal purse to force the balance of direct transport service provision away from local public agencies and towards private, for-profit operators." It was a policy of privatization for privatization's sake, regardless of whether it served the public interest.

We have long argued that the criteria and policies for choosing among public and private providers should be left to local transit agencies and community planners and that the proper role for the federal government should be one of neutrality.

We particularly support the NPR's elimination of the fully allocated costs requirements, and mandatory route reviews. It also appropriately recognizes local prerogatives with respect to labor agreements affecting service decisions, and terminates FTA's dispute resolution role with respect to local public/private service selections. For too long these constraints on local decision making resulted in service choices which not only failed to produce expected cost savings, but resulted in serious service, safety and maintenance problems as well.

A short summary of these problems and cost increases resulting from the misguided use of fully allocated costs entitled "The Failure of Transit Privatization" is attached hereto and incorporated by reference into our comments. This statement summarizes the service failures and costly experiments in Denver, Colorado; New Orleans, Louisiana; Miami, Florida and Los Angeles, California. In each case the systems' suffered serious service problems and failed to realize any cost savings.

Most recently, Professor Elliott Sclar of Columbia University completed an analysis of a July, 1993, report by the COMSIS organization which through a tentative fully allocated cost analysis recommended that the MBTA privatize some 25 percent of its transit bus service. Contrary to projected cost savings set forth in the COMSIS Report, Professor Sclar, employing a marginal cost analysis with Section 15 data reported by the MBTA, concluded that a privatization program based on the COMSIS Report would cost not save the MBTA some $12 million per year. In addition, it would result in seriously fragmented service bringing along with it the usual organizational, safety and service problems evidenced in Denver, New Orleans, Miami and other cities which sought to

privatize on this basis. A copy of this report too is attached and incorporated as part of this statement.

In addition, Professor Sclar recently summarized a series of major policy issues that should be considered by local transit communities when considering privatization of existing bus routes. We believe this analysis properly reflects the FTA's stated view that such decisions can only be based upon an individual evaluation of local community needs and programs rather than any mandated federal approach. A copy of this report entitled "The Policy Issues In Privatizing MBTA Bus Routes" is attached as part of our statement.

We also wish to express our full support for the policy and legal analysis set forth in the Notice as providing the framework for the FTA's decision to rescind the existing privatization requirements. It was clear throughout the debate over ISTEA/91 that Congress intended to emphasize local decision making with respect to emerging transportation plans and programs. In fact, ISTEA imposed limits on the Secretary of Transportation authority to review transit grant recipients policies -- including the criteria established by the newly empowered Metropolitan Planning Organizations (MPOs) relative to the consideration of privatization plans. We refer in particular to Section 8(i)(5) of the Federal Transit Act which states in part that: "The Secretary shall not withhold certification under this section based upon the policies and criteria established by a Metropolitan Planning Organization or transit grant recipient for determining the feasibility of private enterprise participation in accordance with Section 8(0) of the Federal Transit Act." The new FTA policy clearly effectuates this policy directive which had its basis in earlier congressional directives summarized in the FTA's Notice.

Finally, we wish to express specific support for the removal of program restrictions which attempted to over-ride state constitutional prohibitions, local collective bargaining and employee protective agreements as well as other state and local laws and referendum which sought to establish certain conditions and/or controls on contracting out decisions within particular communities. The prior effect of these policies served only to deprive local decision-makers of much needed flexibility to determine both service, labor and other operational needs in the best interest of their communities.

In closing, we wish to emphasize that the FTA's proposed recision represents a necessary and wise change in policy. By re-establishing decision making at the local level and at the same time maintaining important opportunities for both the public and private transit providers and other effected groups to participate in the short and long range planning process, the Administration

has taken an important step towards ensuring that communities can reach the most appropriate decisions for meeting the needs of their commuters.

We again express our appreciation for the opportunity to submit these comments and look forward to working with the Federal Transit Administration in the months and years ahead to improve our nation's transit systems to better serve the communities in which we live and work.

Sincerely,

Jim La Sala
International President

/amw

Attachments

For further information contact: Robert Molofsky, Amalgamated Transit Union Legislative Director, 1-202-637-1664

The Failure of Transit Privatization

False Hopes — Costly Promises

Advocates of transit privatization defend their proposals as rational-efforts to cut transit bus expenditures while assuring the maintenance and quality of their service operations. This is false

Experience throughout the United States indicates that forced privatization, as proposed under pending state bills A-1175 and S-409, have produced significant cost increases, serious service and maintenance problems, ridership and revenue losses, along with significant employee dislocations and reductions in wages and benefits for replaced workers.

These examples clearly demonstrate that the touted savings of transit privatization as proposed under the pending state bills would not materialize and would likely jeopardize the maintenance and quality of bus service now provided by NJT.

We do not believe a mandated approach is wise public policy, nor is it in the best interest of the nding public in the state of New Jersey.

Studies and State Law Use Faulty Analysis

The leading federal transit studies on privatization have attempted to justify expected savings from privatization by comparing the private sector bid costs to the public system's operating expenses. These studies use a flawed comparison between a public system s fully allocated costs (FAC) and the private sector bids.

FAC analysis requires state and public agencies to include their fixed costs (which are not reduced when service is contracted out) as part of their bottom line, in addition to incurred costs for buses and employees.

Yet nationally recognized economists and accounting firms including *Peat-Marwick, Elliot Sclar, Professor, Columbia University, the Economic Policy Institute* and belatedly the *Federal Transit Administration* have recognized the flaws in relying on comparisons on this basis.

Costly Experiences and Service Failures

Denver, Colorado

In 1988, the Regional Transit District in Denver, Colorado, began contracting out 20 percent of its transit service as mandated under state law. Careful reviews of the District's audit reports indicated that this professional scam produced cost increases ranging from $1-9 million in the first two years of the private sector service. Significant service, maintenance and ridership problems arose during the first two years of the system's operations.

While the third year audit report indicates savings of about 3 - 4 percent (remarkably less than the predicted 30 - 40 percent), even these slight improvements are being questioned as the private sector operators re-bid their contracts.

New Orleans, Louisiana

On February 6, 1990, the New Orleans Regional Transit Authority terminated its subcontract with a private transit operator because of significant cost increases and poor service performance. After one year the system experienced annual cost increases approaching $500,000, revenue and ridership losses, and a remarkable increase in reported accidents. Bus break-downs were six times greater than those of the local public operator. The contractor, operating over five routes previously provided by the city transit system was terminated after the first of a three-year experiment. The service was returned to the regional transit system.

Miami, Florida

The Metropolitan Dade County Transit Authority experienced similar problems after one year of a three-year privatization experiment and terminated its service contracts for the same reasons. A litany of adverse effects including ridership and revenue losses, poor service and maintenance and substantial employee turn-over justified the canceled contract. Indeed, the system experienced an almost 20 percent loss in ridership and 100 percent increase in passenger complaints.

Los Angeles, California

Audit reports conducted by the Southern California Rapid Transit District (SCRTD) following two years of private sector operation of former public routes by the Foothill Transit Zone (FTZ) have indicated increased costs to the public operator of some 7.6 percent.

The FTZ is a private company which, in 1989, began operating 14 lines formerly served by the SCRTD in the San Gabriel and Pamona Valleys. As with the Denver case, an initial FAC cost analysis overstated the potential savings.

An *Ernst and Young* study reported that FTZ generated a 43 percent cost savings. However, a careful follow-up study prepared by *Coopers and Librandt* using a marginal cost analysis found that, in fact, the SCRTD and FTZ costs were almost identical. When the figures were corrected for differences in the age of the fleet of the two operators SCRTD, the public operator, was actually 7.6 percent less expensive.

A Cost Analysis of the COMSIS Privatization Proposal

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January 1994

Background:

In a final report to the Massachusetts Bay Transportation Authority (MBTA), COMSIS,[2] a consulting firm, recommended that the authority move quickly (by Spring 1994) to privatize or contract out a significant portion of the fixed bus routes which they now directly operate. According to COMSIS, such action is the only viable alternative to stabilize what is viewed as the MBTA's increasingly perilous financial situation.[3] Contracting out is defined as "buying bus service"[4] from outside suppliers.

The rationale for this conclusion rests upon two observations:

> First, in FY 1991, the MBTA had an overall bus operating cost of about $95 per revenue hour. This was second only to Seattle where the cost was $111 per hour.[5]
>
> Second, the MBTA now pays private contractors about $46 per hour to maintain marginal routes in the district.[6]

Through the artifact of juxtaposing these two observations, the report implied, but, carefully did not state, that the MBTA should expect savings of as much as fifty to sixty percent.[7] on routes it privatizes. If that were true, on a bus operating budget of about $190 million,[8] the MBTA could potentially save at minimum about $145 million per year if it were to turn its entire

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2 "Bus Service Delivery System, Final Report" prepared by COMSIS Corporation in association with Howard/Stein-Hudson, Inc. and John T. Doolittle Associates, Inc., July 1993. Henceforth "COMSIS."

3 The view seems to be a shared assumption of both the MBTA and its consultant. COMSIS, pgs. i-ii.

4 COMSIS pg. ii.

5 Most of the cost data in the COMSIS report is from a secondary source; the U.S. Department of Transportation's annual data series commonly called "the Section 15 report."

6 COMSIS pg. iii.

7 COMSIS, pgs. ii, and II-7.

8 COMSIS, Appendix D.

operation over to private contractors. Even if the more modest privatization which COMSIS is proposing, privatizing about one-third of the system, were implemented, the implied minimal savings would be close to $30 million annually. Because such figures are to good to be true, the COMSIS report never places a dollar value on its conclusion "that the MBTA can achieve significant savings"[9] through privatization.

When the COMSIS data are analyzed using standard cost accounting techniques, the results sharply contradict that implied conclusion. The MBTA stands to lose, not save sizable amounts of money, if the reported recommendations are followed. According to the analysis presented here the loss could be in the range of $12 million per year.

The Privatization Plan:

The COMSIS privatization plan is simple. Allow the staff of bus operators to shrink by about half through attrition over the next three to five years and use those "savings" to "buy" bus services from private contractors.[10]

The Measurement of Cost:

It is a non-controversial standard in both the accounting and economics professions that evaluation of the cost savings of a proposed organizational change must compare the costs actually avoided as a result of the action with the costs which the action will incur. If the newly incurred costs are less than the avoided costs, then the change is cost saving. If added costs exceed avoided costs then the action is cost increasing. This method of

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[9] COMSIS, pg. VIII-1.

[10] COMSIS, pg. vi, pg. V-7 to V-8.

analysis called incremental or marginal cost accounting, is sometimes called avoidable cost accounting.

Despite both the professional agreement and intuitive commonsense of the approach, it is often the case that when a public agency decides to contract out a public service the cost analysis which precedes the action is done on the basis of fully allocated or average cost accounting. On an average cost basis the cost of a service unit is measured as a proportion of the total operation. In the present case the average or fully allocated cost is obtained by dividing the total costs of the MBTA's bus operation by either the number of hours of operation or the number of miles of operation.

The estimate of $95 per hour of operating costs which COMSIS prominently displays at the beginning of its report is just such a fully allocated cost estimate. It contains not just the avoidable bus operator and bus operation costs which are the basis of any potential savings through the proposed privatization, but also the overhead costs which the COMSIS plan makes no proposal for reducing.

Implicit in the $95 average cost estimate is the cost of everything which the MBTA must buy as a matter of legal mandate and/or good management practice. Thus the figure contains the costs incurred to implement Americans with Disabilities Act requirements as well as police protection of transit property, system costs for planning and marketing, *etc.* These are all elements of overhead cost. By contrast, the $46 figure represents the price paid to private operators to run marginal routes in the MBTA region. Many of these routes run with less than one passenger per mile.[11] These private operators are not faced with responsibility for the

[11]COMSIS, pg. II-7.

overhead costs of maintaining a regional transportation network. They only have one job; to get a bus onto an assigned route at the appointed time and place and complete the run. No knowledgeable observer believes that for every hour of service transformed from direct MBTA provision to private contract, costs will fall by $49 ($95 - $46).

In addition to the problem of looking at the average cost and not the incremental cost, the comparison is also distorted because the two costs are on entirely different bases. Since the private operators retain the fare revenue they collect on their marginal routes any proper comparison should at least recognize the value of the fares collected on the MBTA's main routes and net that out of the analysis. According to COMSIS cost data an hour of MBTA service yields almost $21 in fare revenue.[12] Thus the COMSIS report should properly compare a net operating cost of about $74 ($95 - $21) to the net cost of existing contracted service to make its implied gross estimate at all reasonable. Yet nowhere in the COMSIS report is this done.

The report does however candidly confess that the consultants do not know what factors drive the MBTA's cost structure.

> In the course of the investigation, no compelling reasons related to unique environmental, operating, maintenance or other conditions were identified to explain these cost differentials. While the MBTA may experience difficulties unique to Boston, no factor or group of factors is believed to be accountable for the large operating cost difference found in the examination. In short the MBTA motor bus service is simply expensive.[13]

One the next page, in a discussion of economic criteria for competitive procurement, the consultant will only say that "short term savings in variable

[12] The fare revenue on the routes COMSIS examined amount to a little over $42 million. See COMSIS, Appendix D, Exhibit 1-page 4. The fare revenue estimate is obtained by subtracting the amount of subsidy from the full cost of operation. On a per hour basis that amounts to $20.90.

[13] COMSIS, pg. iv.

cost are possible."[14] (emphasis added) Variable cost is typically another way of saying avoidable cost. Despite both a lack of understanding as to the system's cost structure, or certainty as to whether avoidable cost savings are possible, the consultant concludes the entire study by saying with no equivocation that "the premise that the MBTA can achieve significant savings is borne out by this analysis."[15]

Estimating the Avoidable Costs:

The consultant's plan explicitly identifies attrition of bus operators and implicitly the non labor costs of operation and maintenance of vehicles. It is these "savings" which must cover the proposed incurred contract costs of the private operators plus newly incurred costs of contract supervision by the MBTA. The issue of whether the proposed privatization will result in savings to Massachusetts taxpayers then hinges on the degree and direction of the differential between these sets of costs.

Table 1 contains an avoidable cost analysis of the COMSIS proposal. It is based on the data in COMSIS' "Cost Allocation Model."[16] The COMSIS model, using Section 15 data for FY 1992, broke out MBTA bus operation costs into two categories; direct operating costs and overhead. The direct operating costs in turn were divided into those which vary by time (i.e. the hour) such as operators wages and salaries and those which vary by distance (i.e. the number of miles driven) such as fuel and tires. Overhead costs are comprised of cost items which do not vary within either the hourly time frame of the analysis or the distance intensity of bus operation. Hence

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[14] COMSIS, pg. v.

[15] COMSIS, pg. VIII-1.

[16] COMSIS, Appendix D.

these costs will not change as a direct result of privatization. It is in the two categories of operating costs that the plan's avoidable costs are found.

Table 1
Avoidable Costs in the COMSIS Privatization Proposal[17]

Avoidable Cost	Per Hour	Per Mile
Operators S & W	$ 43,687,028	
Fringes @ 81%	$ 35,386,493	
Services	$ 143,974	$ 1,649,442
Fuel & Lubricants		$ 5,129,340
Tires & Tubes		$ 957,564
Other M & S		$ 4,770,562
Casualty/Liability*		$ 3,770,408
Taxes		$ 1,648,892
Misc. Exp.		$ 4,200
Total	$ 79,217,495	$ 17,930,408
Hours	2,074,292	
Miles		22,175,235
Cost per Hour	$38.19	
Cost per Mile		$ 0.81

* Assumes that liability costs are cut in half through privatization

Because the plan calls for the contractors to assume liability for the operations, the above analysis presumes that the MBTA's costs for casualty and liability will drop significantly, but not to zero. In the present case we assume the cost will drop by 50%. The proposal calls for cutting operators and not vehicle maintenance staff. Hence these latter costs are not included in the avoidable cost calculations.[18]

Contracts are customarily let on an hourly basis. Therefore to compare alternatives, it is necessary to convert the distance based costs to time based costs. The 22,175,235 miles upon which the distance based analysis was done were run in the 2,074,292 hours in which the time based analysis was done. That means that the overall system ran at an average speed of 10.69

[17]COMSIS, Appendix D is the source of this data.

[18] The proposal also calls for giving the contractors the newest equipment and retaining the oldest equipment in the MBTA system. Thus COMSIS made a wise decision not to cut the MBTA's maintenance staff as the privatization proceeds.

miles per hour. Consequently on average the $0.81 per mile of operating costs translates into $8.66 per hour of time based operating costs. Combining the two, indicates that the gross avoidable costs in the COMSIS privatization proposal are $46.85 per hour.

Because COMSIS did not estimate of the likely cost of contracted service beyond citing the estimate of $46 for present contract service, we turn to comparable experience to estimate the probable outcome. The incurred cost of $46 per hour implied by the COMSIS analysis does not provide a realistic basis for comparison. Because of the low density operations which generate that number, it will not predict the type of cost structure which the MBTA will encounter when they try to contract out work in the more urbanized portions of their region. A better basis of comparison is provided by the cost of contracted service in metropolitan Denver where twenty percent of the area's existing fixed route transit was converted to private contract operation in 1989 - the same goal which the MBTA is also seeking to obtain, although at a higher level of contract operation.[19] Metropolitan Denver is similar to metropolitan Boston in several respects.[20] Thus the cost experience there provides a reasonable comparison. Certainly it is difficult to argue that costs in Boston would be lower than those in Denver. At present the Denver Regional Transportation District (RTD) pays an average of $56 per revenue hour for its contracted service.[21] In addition contractors retain the fare revenue, estimated to be about $5 per revenue

[19] The MBTA seeks to contract out about one-third of its operation. The RTD contracted out about one-fifth of its operation.

[20] Both metropolitan Denver and metropolitan Boston have populations in the 2 to 3 million range. Metropolitan Boston has approximately one bus in service for every 3200 people. In metropolitan Denver the comparable figure is about one bus for every 2900 people.

[21] Correspondence from John Dailey RTD Senior Contract Administrator to William Jones - Amalgamated Transit Union Local 1001 dated December 1, 1993.

hour .[22] Thus costs there are about $61 per hour. Based on that a cost of about $60 per hour provides a reasonable basis for comparison.

Table 2
Avoidable Cost Analysis of COMSIS Proposal

Cost Item	Detail	Total
Gross Avoidable Cost		$ 46.85
Contract Cost	$ 60.00	
Supervision Cost	$ 4.80	
Total Incurred Cost		$ 64.80
Net Cost per Cont. Hour		($ 17.95)

In addition to the cost of contracted service, an estimate must also be made for the cost of supervising the contractor. Although this cost can vary greatly depending upon the degree to which an agency wants effective supervision, it was estimated that supervision costs were about 8% of contract costs when the RTD began contracting.[23] We use that estimate here.[24]

Thus rather than a savings of $49 per hour as the COMSIS average cost charts imply, their data actually show that, incrementally, their proposal could easily cost the MBTA an additional almost $18 per revenue hour of contract service.

Using a basis of 658,640 hours of privatized service which the COMSIS plan implies, the MBTA would have to spend an additional $11.8 million per year merely to maintain the same level of service, assuming quality did not deteriorate. More likely such added costs will increase the pressure on the MBTA to institute further cuts in service.

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[22] KPMG Peat Marwick "Denver RTD Privatization Performance Audit Update: July 1990 - June 1991.

[23] KPMG Peat Marwick "Performance Audit of Privatization of RTD Services, Revised Final Report". December 24, 1990

[24] COMSIS asserts, but does not justify the use of an estimate of 2 to 3 percent for contract supervision costs. However in more scholarly studies, these costs range as high as 33%. However 10% seems a reasonable standard in the absence of other experience. Hence our use of 8 % is a conservative cost estimate. See Rehfus, "Contracting Out and Accountability in State and Local Governments - The Importance of Contract Monitoring", *State and Local Government Review*, Winter 1990.

The economic point is simple. On an incremental cost basis, the effective savings which the MBTA can achieve from the reduced costs of bus operator compensation and vehicle maintenance has to cover all the similar costs within a private firm plus the costs of firm management, overhead and profits as well as agency supervision of its contractor. Unless the differentials between private sector personnel costs and public sector costs are vast the type of change which is being proposed has a high probability of losing significant money for the system.

Conclusions:

While no one doubts that the MBTA could be more efficiently managed, the question of how that should be accomplished must remain open. Top management would be wise to carefully reconsider the expedient privatization conventional wisdom now guiding its decision making process. The cost economics of that course of action based upon their own data and the experience in Denver suggests that the approach is highly questionable. More importantly, by focusing on the most politically loaded and economically dubious way of improving system efficiency, MBTA management places not just the system and its riders at risk but the regional economy whose prosperity is intimately linked to good transportation service.

The Policy Issues in Privatizating MBTA Bus Routes

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Background:

The desire of the MBTA's senior management to pursue privatization as its prime means of achieving cost effective internal control over the agency is consistent with popular thinking. Despite its apparent appeal, it is not clear that the approach will have the desired effect. As the cost analysis (Sclar 1994) of the proposed privatization made clear, if the plan is carried forward the cost of service is likely to increase significantly; scarcely a finding of enhanced cost effectiveness. This document analyzes the policy issues which are frequently swept under the rung in the rush to put privatization in place. The MBTA management and the taxpayers of Massachusetts would be wise to carefully consider these issues as the process of reforming the MBTA proceeds.

The case for privatization rests on two assumptions, one frequently stated and one just as frequently unstated. Both of which are questionable.

The Frequently Stated Assumption. *Private firms can produce transit service more efficiently than public agencies.*

While the private sector does many things far better than the public sector, in the realm of transit there is good historic experience to explain why, in most instances direct public service provision is more beneficial, more efficient or both.

An UMTA funded study of fixed route bus service in New York City compared the bus service operating costs of the large and complex New York City Transit Authority (NYCTA) with private operators in Brooklyn and Queens. This particular comparison is especially noteworthy because only organizational efficiency was at issue. Both the NYCTA and the

private operators use virtually identical equipment and paid comparable wages under comparable contracts to employees. (Grava, et. al. 1987) The study concluded that when the more complex mandate under which large public transit agencies operate is considered, the small cost advantages of lower overhead private operators, are not enough to produce meaningful long term cost advantages through such forms of widespread privatization.

The reason we should not be surprised at such a finding is that efficiency is strongly guided by the technical conditions of production. In the case of transit, the technology of directly providing fixed route bus service has changed little from its initial development early in this century. Bus service is produced through the act of one driver, driving one bus over a prescribed route. Although the condition of the equipment and experience of the driver are crucial to public safety (to be discussed below) efficiency and the productivity of the operation mostly depends upon factors outside the control of either the operator or the service manager. The two largest determinants of transit productivity are the volume of riders and the volume of road traffic. A fully loaded bus traveling over a relatively empty highway at top speed is highly efficient and hence productive. A mostly empty vehicle crawling over congested city streets is neither. Both of these factors are beyond the immediate control of the operator or the immediate employer - public or private. They are within the realm of public policy. Over the long term the public sector can, through transit marketing, route planning, infrastructure investments, land use policy and pollution control do a great deal to enhance bus service productivity. However for that to happen the public operator must be a viable and

concerned agency.[1] Hence the MBTA's senior managers should look to the factors which encourage transit ridership and discourage unnecessary use of automobiles as the largest factors in shaping the productivity of their drivers. It should be noted that increasing ridership as an option for improving the MBTA's fiscal situation, was the only option not considered by the agency's privatization consultant (COMSIS: 1993 pgs i & ii).

If we discount inherent organizational superiority as the principal source of private sector transit efficiency and ascribe much of productivity to external conditions (i.e. ridership and congestion), then we must ask where the savings would come from if privatization proceeded? The answer is that to the extent that costs are reduced, the reductions relate to the degree of success which a private operator can have in paying less for the factors used to produce bus service than a public operator. Since the costs of capital equipment such as buses are fixed by the private market in which both public and private transit operators participate as buyers, those who advocate privatization usually look to the cost of labor as the place where savings can be achieved. In that regard the MBTA sponsored study is typical.

> There are several reasons why contractors have lower operating costs than public agencies. Contractors tend to offer market-based compensation packages, have less restrictive work rules, and have more efficient operating and capital structures. (COMSIS, 1993, pg. I-1)

In the blunter words of University of California at Los Angeles Transportation Professor Martin Wachs, writing in the prestigious journal *Science* :

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[1] Ironically one outcome of successful privatization will be to shrink the political effectiveness of public transit agencies and hence exacerbate rather than alleviate pressing urban and suburban circulation problems.

> By using part-time and nonunion labor, and skimping on fringe benefits, private contractors can bid below public service providers in the short run. But when private contractors succeed and expand, there is pressure for their work forces to become unionized, and in time the differential between private and public costs is lessened. (Wachs, 1989.)

Although widespread transit privatization is still a relatively new phenomenon, for decades state governments have been operating dual social service delivery systems. Professor Martin Hanlon of the City University of New York in his review of that experience has come to a similar conclusion about the trajectory of labor costs. (Hanlon, 1993) We have no reason to believe that the MBTA under a regime of dual service provision will behave differently either than other public transit systems or government contracting in general.

The Frequently Unstated Assumption. *The contracting out of transit service will in some unspecified way be different from all other public contracts and hence free of the inefficiencies and corruptions which typically characterize instances in which public moneys are paid to private vendors to provide public services.*

It does not matter whether we look at the billing and service abuses visited on public taxpayers by private nursing home operators or the politics of contracting out defense weapons systems. In all instances in which we develop a private industry which substantially thrives on public largess, the cost savings which private contracts may produce are seriously and frequently eroded by the costs of systemic inefficiencies. Proponents of privatization simply gloss over or ignore this rich and troubling piece of

our political history. In general, any time government buys products, such as office supplies, in which they are only one of many participants the case for superior private sector efficiency is strong. In cases in which government creates the market, as is the case with transit, the politics of contractors maintaining themselves at public expense looms large in the long run. Thus even in those instances in which privatization may initially save small amounts of money, the lack of competitive private markets almost insures that any savings will be quickly dissipated. (Starr, 1988)

Ridership and Safety:

Costs are not the only issue. Although there is much concentration nowadays on financial bottom lines, more important are the matters of ridership and public safety. Over the long run if we are to maintain and improve the productivity of our cities and suburbs, the contributions of transit to improved regional circulation must be recognized as critical. Privatization must be evaluated against the standard of service to the public. In two of the most publicized and carefully watched UMTA-funded privatization demonstration projects, the private sector produced the worst results on issues of ridership and safety.

The Metro-Dade Transit Agency (MDTA) which serves Florida's Miami region became one of seven national demonstration sites in an UMTA supported project to test the comparative cost and service quality of publicly and privately operated transit services. Known as the Private Enterprise Participation (PEP) program, the MDTA demonstration involved giving a three year service contract to Greyhound Lines Inc. (GLI) to provide carefully monitored service. Although cost was found to

be lower on the GLI routes (Price Waterhouse 1989a, and 1989b), those savings came at a steep price in terms of quality. The level of complaints on GLI routes rose by more than 100 percent. It is not surprising that these routes experienced an almost 20 percent loss in ridership. By comparison, the routes run by MDTA maintained lower complaint levels and hence maintained their ridership. Further the equipment was so poorly cared for that when the private operator abandoned the service, a full year before the end of the demonstration, of the 40 buses leased from the public sector, only 10 were still in sufficiently good repair that they could be put back into other service.

The experience in New Orleans was similar. A second UMTA funded privatization demonstration also involving GLI, had similar poor results. The breakdown rates for GLI's buses were almost six times greater than those of the local public operator, the Regional Transit Authority (RTA) of New Orleans. The frequent breakdowns and unexpectedly higher accident rates of the private operator forced the RTA to cancel the service after only 1 year. In terms of cost it is also worth noting that the only reason there were any paper savings for the RTA was because UMTA effectively subsidized the experiment. (Sclar, et. al., 1989). However even with the federal money the service deterioration was more than the public operator could responsibly accept.

Both of these experiences should make the MBTA wary of turning it best rolling stock over to private operators for only nominal payment and little oversight as is called for by the present privatization proposal (COMSIS 1993).

Other Cost Issues:

There are three other important, but frequently overlooked sets of real public costs which must be considered in privatization. These are the costs of contract supervision, the costs of competition and unfunded employee health and welfare benefits.

A. Contract Supervision

One of the main problems with most public contracting efforts is the need to diligently supervise contracts. Yet privatization is advocated as a money saving venture precisely during those difficult fiscal times, when governments do not have the necessary money to diligently supervise contracts. The need for supervision is intuitively obvious to anyone who has hired a contractor to work on a house. Although all parties may think an agreement is clear, there is always room for misunderstanding. Only those willing and able to actively supervise their contractor are likely to get the level of performance they expected from the agreement. In the initial phase of the Denver privatization, the RTD devoted 8 percent of the contract price to the costs of contract administration. (Peat Marwick, 1990b). However by last year the proportion of funding dedicated to contract supervision had shrunk to .07 percent. (Peat Marwick, 1991) It was only by either not counting or shrinking the cost of supervision that the RTD was able to claim a savings for its effort to date. Had the RTD maintained the previous level of contract supervision, they would have lost $245 million . Whether that reduction in supervision occurred because the agency became more efficient at supervision or in order to avoid large

losses, the report never makes clear. If it is caused by a need to minimize losses, the results will eventually show up in increased problems with contractors and ultimately deteriorated service performance.

B. Maintaining Competition

The key to contracting success rests upon the notion that competition disciplines prices and keeps them in line with costs. However the costs of maintaining competition are not often considered. It is merely assumed that new competitors will always appear. The reality of experience is that once a group of operators settles into a market, new outside competition rarely materializes. To maintain a stable long term competitive market a public agency has to be prepared to keep its stable of contractors viable and at arms length from one another. That costs money. Absent such an effort, the more natural state of a public contract market becomes a largely monopolized operation. At that point contract costs become almost entirely a political outcome. Consider the situation in Westchester County, New York, which has had privatized service since 1975. When contracting first began, there were 16 private companies in the program, none with more than one-third of the system's passengers. By 1985, there were eight companies. with the largest carrying 93 percent of the passengers. One result is that the operating cost per hour in Westchester is only 5 percent less than that of the large and complex New York City Transit Authority. (Sclar *et. al.*, 1989) The point here is competition does not come free. The public sector must plan and pay for it. However once those costs are also factored in, the question of true cash savings must be reconsidered.

The situation in Denver is similar. After the initial contracts were let in 1989, the pool of bidders shrunk to the three companies who won the initial bids. Only two things have changed since. The relative shares among three of them have shifted and costs have risen dramatically. Mayflower, which controls over half of the market (52%) won its first round of contracts with a bid of $28.26 in 1989. By 1993 it was charging $54.65 per hour. Over all contract prices for all three companies have risen at almost 6 percent year despite minimal inflation and no meaningful increases in labor costs.

C. Unfunded Personnel Costs

The final area of cost pertains to the public cost implications of the well documented fact that any observed savings stems largely from the ability of private operators to pay lower wages and have poorer fringe benefits. We usually think of these costs only in terms of the personal fortunes of the workers who enjoy or fail to enjoy the benefits. However the absence of such fringes does lead to very real and direct costs for the taxpayer. In the case of pensions the problem may be gradual and long term. In the case of health benefits the impacts are immediate and expensive. It is simply the case that by substituting employees without adequate health benefits for employees with them Massachusetts will merely shift some very large costs from the budget of the MBTA to the state health budget. A study by the University of California, Berkeley - School of Public Health (1991) indicates high levels of stress, hypertension and back pain among transit operators. All of these are expensive ailments. Just because a cost disappears from one segment of the public budget does

not mean that it is gone as a public expense. At present, the nation spends on average about $2,400 per person per year for health care. The kinds of costs which these occupationally related ailments generate can easily exceed this average. One simple calculation that should at minimum be done to estimate this hidden public costs is to multiply the net number of workers and dependents who will lose adequate insurance as a result of privatization by $2,400 and add that to the public costs of contracting out services.

Conclusion: System Issues:

The recently passed Intermodal Surface Transportation Efficiency Act or ISTEA recognized for the first time that the solutions to the nation's travel problems are going to involve a far more extensive role for transit. Unless transportation is improved, the American economy will be at a severe disadvantage in international competition. Transit is at its best when it can speedily move people over complex networks of routes quickly, comfortably and safely. Systems require continual planning and improvement. Networks of routes run by disparate operators are much more difficult to operate efficiently on a day to day basis than a system under a single manager who can quickly make adjustments to changing circumstances. In Los Angeles where over 20 transit companies, operate, a new computerized information system has been put in place to help travelers pick through the maze of routes, times, fares and schedules which this multiplicity of operators creates. (ULI 1992) While such information systems will help, in the long run an integrated system would be better at encouraging more reliance on mass transport and less dependency on automobiles which are proving to be too expensive in terms of

environment, energy, infrastructure and congestion costs for the new global competition which the Massachusetts economy now faces.

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TTD POLICY BRIEF

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January 24, 1994

Rescinding Costly and Intrusive Transit Privatization Rules

Mass transit systems provide a unique service that is vital to every community – large and small – across the United States. Historically, the expansion of the nation's transit capacity has been linked to economic expansion, new business opportunities, and job creation.

The premise upon which this privatization policy rests is wrong and contrary to the best interests of transit systems, commuters, and taxpayers.

The primary goal of federal transit policy should be to develop and maintain an efficient, safe, and convenient transit network, and to fully utilize this important sector of our multi-modal transportation system. In the 1990s, transit services will also provide the means for satisfying the mandates established by recent federal initiatives governing clean air standards and the fair treatment of disabled and elderly citizens.

Unfortunately, the privatization policies of the Reagan and Bush Administrations have threatened the very fabric of vital publicly supported services, including transportation. They have put essential public services and public employment in jeopardy. And they have contributed to a low-wage society.

In 1984, the Federal Transit Administration (FTA) adopted a new federal transit policy "to insure that local decision-makers fully and fairly consider the private sector's capacity to provide needed transportation services." Any recipient of federal transit assistance – virtually every subway, rail, and bus system – was forced to make an all-out effort to let private, for-profit companies run all or part of the system. This privatization policy placed undue pressure on local transit grant recipients, often at the expense of vital transit services.

The new FTA has wisely concluded that the premise upon which this privatization policy rests is wrong and contrary to the best interests of transit systems, commuters, employees and taxpayers. On November 19, 1993, it proposed rescinding the Reagan-era transit privatization regulations. The FTA will make a final determination about the recision following a public-comment period.

PUBLIC VS. PRIVATE

Transportation labor has long opposed the irresponsible sell-off of public assets and services. We believe that public facilities, built and supported by public funds, should serve the public interest and not be dedicated to generating profits for private interests.

At the very least, transportation labor believes that decisions involving the choice between public and private transit operators should be left to local authorities who are better equipped to

hiring rights, and it put in place a dispute resolution process that, due to ill-advised appeals procedures, resulted in undue delays at great costs to FTA and the affected parties.

During the life of the present policies, the FTA has also doled out more than $5 million in grants and contracts to conduct studies and to support advocates who were ideologically committed to privatization. The money funded the formation of local advocacy groups to stir up interest among private companies, attend local planning meetings, and provide "technical assistance" on privatization to local authorities.

These FTA policy directives forced the will of the federal government on local transit grant recipients while failing to offer any discernible benefits.

Overall, these FTA policy directives forced the will of the federal government on local transit grant recipients while failing to offer any discernible benefits for transit systems, riders, and affected employees. Today, the FTA cannot cite a single example of a case in which the public benefited from this federal campaign. In fact, studies say that privatization schemes in some major cities led to cost increases, serious service and maintenance problems, ridership and revenue losses, significant employee dislocations, and reductions in wages and benefits.

ISTEA AND LOCAL AUTHORITY

The FTA's proposed recision is also compatible with the landmark Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), which called for new approaches to investment in our surface transportation system. Among other things, ISTEA established new programs to give local transportation officials greater flexibility in spending federal resources.

Throughout the debate over ISTEA, Congress asserted its view that decision making should return to local planners who are better suited to identify local needs. In fact, ISTEA imposed limits on the Secretary of Transportation's authority to review transit grant recipients' policies concerning the consideration of privatization plans. The authors of this legislation recognized that the privatization policies established by the Reagan Administration imposed unnecessary federal mandates and placed a strain on the transit grant process.

FINAL OBSERVATIONS

History demonstrates that local transit systems will always be able to make a choice between public and private services. But over the last decade, the heavy hand of the federal government imposed burdensome and costly mandates on state and local authorities in pursuit of an ideological agenda.

From a broad public policy perspective, the FTA's proposed recision wisely recognizes that local governments – in partnership and consultation with the FTA – are better suited to make short- and long-term transit plans for their citizens. It restores a level playing field that will help ensure that privatization decisions are made on the basis of local, public needs – not ideology.

The Transportation Trades Department, AFL-CIO, represents the interests of several million workers in the airline, auto, rail, transit, trucking, and related industries. For more information, contact TTD, 400 North Capitol Street, N.W., Suite 861, Washington, D.C. 20001, (202) 628-9262.

LETTERS TO THE EDITOR

Transit Studies Are Misleading

Nothing makes a cheaper case for the Federal Transit Administration's proposal to reform its transit service contracting policy than the letter from Walter Bellard, chairman of the American Transit Service Council, ("Transit Operators Defend Competition," Feb. 4, Page 6A) and the opinion article by Heritage Foundation analyst Adam Thierer ("No Way to Fix Public Transit," Feb. 2, Page 6A).

To bolster their case against the proposed change, both authors cite studies purporting to show that privatization has generated tremendous savings compared with the cost of in-house service operations.

In fact, none of the listed agencies are enjoying such savings. These estimates are an artifact of the fully allocated cost accounting method for privatization cost comparisons, which the present policy forces on local transit agencies.

This accounting method is a tool of political empowerment and not an accurate technique of comparative cost accounting. Mr. Bellard notes that the method is important to private contractors because it helps ensure that public transit agencies never "appear to provide a cheaper service than a private provider" when that may not be the case.

It does this by overstating true in-house service costs. It simulates that cost comparisons list as savings items for which in-house costs do not fall through privatization as well as those for which they do. It is this inflated estimate of public operating costs that is then compared to the offering price of private bidders.

Mr. Thierer cites a study of the Los Angeles Possible Transit lines conducted by a well-known privatization advocacy group — the Reason Foundation — which claims savings of between 26% and 43% as a result of privatization. He could as easily have cited a study of the same agency done by the national consulting firm, Coopers & Lybrand. They performed a standard cost comparison in which only the costs actually avoided were compared with the costs actually incurred, known as incremental cost analysis. They concluded that that particular effort may well have lost rather than saved the public money.

Both writers also discuss the situation in Denver and cite a study by another consultant, KPMG Peat Marwick, in which it is claimed that savings of up to 31% were obtained through privatization. That is a fully allocated cost estimate. In a 1991 letter to the chairman of the Denver area transit agency, KPMG Peat Marwick pointed out that such a number is not an accurate reflection of true cost savings.

The consultant wrote, "It is our conclusion that management decisions regarding the real ... savings to be derived from privatization should be based on an incremental analysis. Incremental analyses address assessable savings.... Fully allocated cost comparisons infer that long-term theoretical savings in administrative costs actually occur in the short-term, an outcome that has not been demonstrated."

So what is the situation in Denver? In 1988, when the privatization began, operating costs were about $100 million. By 1993, they had risen to $315 million. Throughout the entire period, the cost of privatized service rose at a faster rate than the cost of in-house operation. Between 1991 and 1993, when system operating costs rose about 7%, purchased transport service (privatization) costs rose almost 15%.

Is it better or worse than the situation might have been without privatization? Almost a rigorous incremental cost analysis, no one knows for sure. I suspect it is worse. But that is beside the point. The point is that local transit agencies are complex operations. Only local management, which has the best feel for, the local situation, is in a position to judge which deals are better or worse for them. We can't accuse them of malingering before the fact, as these two writers do.

Elliott Sclar
Professor Urban Planning
Columbia University, New York

Statement of

Darryl L. Wyland, Senior Vice-President

Public & Government Relations

American Automobile Association

Prepared for the

Subcommittee on Surface Transportation

of the

House Committee on Public Works and Transportation

Relating to

Legislation Designating the National Highway System

The American Automobile Association, serving more than 35 million members in the United States and Canada, appreciates this opportunity to comment on the National Highway System (NHS), a needed national highway network to ensure that personal motor vehicle travel and trip needs are met in a safe, convenient and timely manner.

We commend you, Mr. Chairman, for your leadership in initiating timely hearings on this important issue for the motoring public.

AAA believes that the world's best transportation system begins right at the end of one's driveway. This nation's vast network of roads and highways can carry one anywhere - to work, to school, a favorite vacation spot, or to the driveways of friends and family.

The concept of the National Highway System is in accord with a long-standing AAA policy that the federal government should be responsible for roads of national significance. The NHS will represent that federal responsibility.

The Federal Highway Administration is to be commended for submitting a well-designed system that will complement the existing Interstate System. It should dramatically increase transportation productivity, reduce congestion, and improve safety for both personal and commercial users. We understand the proposed system

will carry 40 percent of all highway traffic including an incredible 80 percent of all tourism travel!

The proposed NHS would connect major population centers, border crossings, intermodal transportation facilities, travel generators such as national parks, and other major tourist and travel destinations nationwide.

The NHS could also serve as a network for implementation of smart car and smart highway technologies (IVHS), that will move people and goods more safely and efficiently. Computerized route selection, congestion alerts and incident management systems are already off the drawing boards and are being tested on our highways. New pavements and other construction materials have and are being developed. In urban areas, these new technologies and materials could improve traffic flow to the extent that tailpipe emissions could be reduced by as much as 30 percent compared to stop-and-go congestion.

AAA has heard those voices who would have us believe that the Interstate System is enough - we need no more roads. They tell us that the Interstates provide ample connectivity - there is no need for additional capacity on existing roads.

AAA believes this is myopic. Although Americans rely on motor vehicles more than ever before, highway construction has not kept pace. During the 1980s, the growth in the number of new vehicles

nearly doubled the growth in population. During the same period, the number of vehicle-miles driven increased 100 percent, but net capital outlays for highways dropped 10 percent and road mileage increased only 5 percent.

AAA believes that an increased investment in our highway infrastructure is a strategic investment in America's future. Highway improvements through the National Highway System will bring about increased transportation productivity - which will translate to employment opportunities and improved mobility for millions of motorists.

We also cannot afford to overlook the potential safety benefits of the NHS. In the United States, the Interstate System (representing the highest class of roads), has by far the best safety record. In 1992, there were .74 fatalities per 100 million vehicle-miles of travel on the Interstate, a rate barely half that on the next best class of roads (non-Interstate Principal Arterials). The Interstate has an even better record when it comes to nonfatal injury accidents - the rate is substantially less than half that on any other class of roads.

When the Interstate System is combined with non-Interstate Principal Arterials (the Interim National Highway System), we find the 1992 fatal accident rate on the combined system was 1.14 per 100 million vehicle-miles of travel. Other federal-aid highways and non-federal-aid highways had rates of 1.85 and 2.14, respectively.

Non-fatal injury accident rates show a similar pattern.

With over 40,000 motor-vehicle-related deaths in the U.S. in 1992, the above figures argue favorably for increased investment in high-grade roads in order to reduce the toll from traffic accidents. The National Highway System will fill that need and should advance the development of safety initiatives that will meet current and expected traffic volumes and travel.

AAA urges this Committee to move expeditiously to pass National Highway System legislation that will be enacted into law in a timely manner. The NHS will represent the culmination of many years of a successful federal-state partnership in highway development and construction by providing improved mobility for millions of Americans.

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April 4, 1994

The Honorable Nick Joe Rahall
Chairman
Subcommittee on Surface Transportation
Public Works and Transportation Committee
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

This is a letter regarding the creation and designation of a National Highway System (NHS) and the expansion of this system into a National Transportation System. This letter essentially supports the testimony of Mr. Thomas Kornegay, Executive Director of the Port of Houston Authority which was presented on March 3, 1994 before your Subcommittee.

The American Institute of Merchant Shipping (AIMS) is a national trade association representing 23 U.S.-flag carriers which own or operate approximately eleven million deadweight tons of tankers, dry bulk carriers, containerships, and other oceangoing vessels engaged in the domestic and international trades of the United States. AIMS represents a majority of U.S.-flag tanker and liner tonnage.

Intermodal freight transportation is steadily improving due to vast investments in private capital and public nonfederal funding dedicated to facilities of U.S. ports. Additionally, approximately $5.5 billion in federal funds will be invested in the marine transportation infrastructure of the U.S. in the next five years for projects related to shoreside transportation according to the American Association of Port Authorities (AAPA). The creation and designation of a National Highway System, and the expansion of this system to a National Transportation System would benefit U.S.-flag carriers in the following ways:

- Place a new emphasis on intermodalism and recognize the essential nature of access to seaports, the gateways to America's world commerce.
- Expand "fundable" categories to include intermodal freight carriage projects beyond projects addressed by the categories existing now for freeway, commuter rail and bikeway projects.
- Increase funding opportunities for connections between the ports and interstate highway systems and rail systems.
- Shift from the local level to the national level further program guidance and decision-making called for under ISTEA.

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- Allow national ocean borne freight projects to compete for transportation funds in the same manner as do popular local or regional projects, namely mass transit projects.

- Promote nation-wide U.S. competitiveness by expanding seaport connections to national intermodal freight routes.

Investment in efficient U.S. freight transportation is essential. U.S.-flag vessel owners will benefit from national planning in this area. AIMS supports the testimony of AAPA on this topic and requests that this letter be entered in the record.

Thank you for your consideration of our concerns.

Sincerely,

Ernest J. Corrado

Ernest J. Corrado
President

DRAFT FINAL
02/28/1994
15:13:15

THE ISTEA AND THE NHS: ONE STEP FORWARD, TWO STEPS BACK?

Prepared for
THE SURFACE TRANSPORTATION POLICY PROJECT

By:

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February, 1994

INTRODUCTION

This paper examines policy issues associated with the National Highway System (NHS) established by §1006 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the designation of which will be considered by Congress during its 1994 session.

This discussion is premised on the notion that transportation investment strategies and priorities should derive from broadly held societal values, and that objectives relating to economic development, environmental protection, social equity, and community cohesion should all be important to determining policy choices. In short, to paraphrase Reid Ewing, ***transportation planning as if people mattered.***

Newcomers to the transportation arena might reasonably wonder why this is noteworthy, since the logic of having transportation serve society - instead of the other way around - doesn't seem especially opaque. In point of fact, however, the "corporate culture" which has driven transportation decisions since the dawn of the Interstate era has been dominated by the idea that facilities should be built and expanded to accommodate vehicular demand without much regard to whether the collective result of those decisions is the dehumanization of our cities and towns and the desecration of our cultural and natural environments.

The reader is cautioned that this is not, however, a simple polemic condemning the purveyors of concrete and re-bar as unredeemable destroyers of our urban villages and rural landscapes. Rather, it is an attempt to take a hard look at whether the Nation's economic and environmental goals can best be served by conferring a kind of "most favored system" status on the NHS to the detriment of the important policy advances otherwise to be found in the ISTEA; or, whether a better approach would be to keep faith with the ISTEA's policy vision by clearly making the NHS a subset of a ***National Intermodal Transportation System*** and by requiring that investment decisions for the NHS not be exempted in any way from comprehensive regional and state planning processes pursuant to the ISTEA and the Clean Air Act Amendments of 1990.

To address that question, this paper first recounts the policy foundations of the landmark ISTEA legislation, and then goes on to explain how those foundations may be undermined as a result of the complex interplay of statutory, political, institutional and technocratic factors which could combine to thwart the vision of a ***National Intermodal Transportation System*** as envisioned in the ISTEA's Declaration of Policy.

In a slight digression, the paper also examines how the exciting new technologies in the IVHS arena may, like the NHS, have unintended consequences if they are not advanced in the context of, and linked to, the broad societal values which they are advertised as serving.

Finally, the paper makes specific recommendations to Congress for adopting a National Highway System within the framework of a ***National Intermodal Transportation System*** (NITS) in a way that will help to ensure that the broadest array of the ISTEA's policy objectives are accomplished.

The ISTEA's Declaration of Policy (§2) makes reference to a ***National Intermodal Transportation System,*** and states that it shall "include a National Highway System." On December 9, 1993, US DOT Secretary Federico Peña submitted the Department's NHS recommendation to Congress, and took that opportunity to outline his principles and goals for a ***National Transportation System.*** I believe that, in concept and intent, the Secretary's vision of an NTS and the NITS to be found in the ISTEA are one and the same. Accordingly, this paper's uses the abbreviations NTS and NITS interchangeably.

In considering the NHS, the Congress has a historic opportunity to re-validate and reinforce the ISTEA's call for a ***National Transportation System*** in which people and communities matter. But, as will be seen, the proposed NHS puts the promise of the ISTEA at considerable risk. On the table are not arcane questions as to which bureaucrats in which institutions use which models based on what data to arrive at transportation recommendations and decisions. Rather, what's at stake is whether the Nation is going to take the next step forward on the path toward making our transportation systems and strategies responsive to the economic, environmental, social and cultural needs of the American people.

ONE STEP FORWARD: POLICY UNDERPINNINGS OF THE ISTEA

> "The Intermodal Surface Transportation Efficiency Act of 1991 truly is a landmark bill. However, we must remain vigilant so that the opportunities that we applaud today become the transportation realities of tomorrow."
>
> Congressman Norm Mineta

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 broke important new ground by envisioning an approach to transportation planning, programming and funding in which people and communities matter, and by attempting to move away from the traditional strategy of simply accommodating demand without regard to meaningfully addressing questions of social equity, economic efficiency, environmental and aesthetic degradation, energy conservation, and impact on quality of life and community livability.

The hallmarks of this new approach may be found in the ISTEA's "Declaration of Policy" (§2), the very first paragraph of which states:

> "It is the policy of the United States to develop a ***National Intermodal Transportation System*** that is economically efficient, environmentally sound, provides the foundation for the Nation to compete in the global economy, and will move people and goods in an energy efficient manner."

Thus, Congress anticipated the call by the Surface Transportation Policy Project (STPP) and others for a multi-modal and inter-modal ***National Transportation System.*** Lest there be any doubt as to what Congress intended, the Declaration of Policy goes on to state:

> "The ***National Intermodal Transportation System*** shall consist of all forms of transportation in a unified, interconnected manner, including the transportation systems of the future, to reduce energy consumption and air pollution while promoting economic development and supporting the Nation's prominent position in international commerce."

> "The ***National Intermodal Transportation System*** shall give special emphasis to the contribution of the transportation sectors to increased productivity growth. Social benefits must be considered with particular attention to the external benefits of reduced air pollution, reduced traffic congestion and other aspects of the quality of life in the United States."

The Declaration of Policy clearly supports the Secretary's position that, contrary to the traditional "lines on a map" approach, a National Highway System should be subsumed into a ***National Intermodal Transportation System.*** The NITS then becomes the basis for articulating a new vision not only of the positive contributions which transportation can make, but also of a new transportation decision-making paradigm premised on the idea of synergistic, rather than antagonistic, linkages among goals of economic productivity, environmental protection, and revitalization of our Nation's urban and rural communities.

It must be noted, however, that similar high-sounding policy statements can be found in transportation bills going back to the beginning of the Interstate era. The reason that the ISTEA is a step forward for transportation is that it translates this policy vision into specific provisions to be found throughout the legislation which link these general policy directions to both planning requirements and funding mechanisms. These include:

- Emphasis on a Systems Approach: highway and transit planning requirements are made identical for metropolitan areas, and give new emphasis to a *systems approach* to transportation planning with increased emphasis on alternative modes, environmental protection, and mobility of people and goods. For example, §134(a) of Title 23, U.S.C., and §8(a), of Title 49, U.S.C., read *identically:*

  > "It is in the national interest to encourage and promote the development of transportation systems embracing various modes of transportation in a manner which will efficiently maximize the mobility of people and goods within and through urbanized areas and minimize transportation-related fuel consumption and air pollution. To accomplish this, metropolitan planning organizations, in cooperation with the state, shall provide for the development of transportation facilities (including pedestrian walk-

ways and bicycle transportation facilities) which will function as an intermodal transportation system for the state, the metropolitan areas, and the Nation."

- Holistic Approach to Planning: Table 1 summarizes the ISTEA provisions relating to metropolitan and state planning requirements rearranged into a simple taxonomy for purposes of this discussion. One can certainly quibble as to whether all the provisions fit neatly into this particular taxonomy, but that is beside the point. What is important is that while the requirements for states and MPO's are not identical, they are similar enough to draw two conclusions with regard to Congressional intent:

  1. Congress clearly embraced a "holistic" approach to transportation planning wherein the concepts of *system performance* must be expanded beyond traditional level of service (LOS) (i.e. vehicles on facilities) to include mobility and access (to jobs, health care, cultural and recreational opportunities, etc.), reliability, security, social equity, and impact on the environment and quality of life.

  2. Further, Congress also intended that the states and MPO's play by the same set of rules in a cooperative partnership which rejects outmoded concepts of "separate and unequal" subsystems which, while necessarily sharing the same physical environment, have traditionally occupied more-or-less separate planning and financial universes.

- Flexibility: the ISTEA gives state and local officials unprecedented flexibility in moving Federal funds between modes, underscoring the idea that the Nation's transportation investment portfolio should be premised on broad economic, social, and environmental policy objectives cited above and should not be arbitrarily constrained by Federal designations. Of special note is the provision (§104(c), Title 23, U.S.C.) which allows transferral of up to 50% (and up to 100% with the approval of the Secretary) of funds apportioned to states for the National Highway System. This is another strong indication that Congress intended that programming and funding decisions with regard to the NHS be made in the context of a comprehensive, multi-modal planning exercise which takes into account all of the factors cited in Table 1.

TABLE 1

PLANNING FACTORS IN THE ISTEA

REQUIRED FOR MPO'S		REQUIRED FOR STATES
INTER-MODAL/MULTI-MODAL PLANNING		**INTER-MODAL/MULTI-MODAL PLANNING**
• Connectivity of metropolitan roads with roads outside the metropolitan area.		• Metropolitan area plans.
		• Transportation needs of non-metropolitan areas.
		• Connectivity metro areas to each other and to non-metro areas.
		• Long range needs of the state transportation system.
• Methods to enhance and expand transit services and use thereof.	.....	• Methods to enhance and expand transit services and use thereof.
		• Incorporating bicycle and pedestrian facilities.
• Methods to enhance the efficient movement of freight.	.....	• Methods to enhance the efficient movement of freight.
• International border crossings, access to ports, airports, intermodal transportation facilities, etc.	.....	• International border crossings and access to ports, airports, intermodal transportation facilities, etc.
		• Recreational travel and tourism.
SYSTEM PRESERVATION, MANAGEMENT AND EFFICIENCY		**SYSTEM PRESERVATION, MANAGEMENT AND EFFICIENCY**
• Transportation needs identified by management systems developed by the State pursuant to §303, Title 23, U.S.C.	.....	• Transportation needs identified by management systems developed by the State pursuant to §303, Title 23, U.S.C.
• Congestion relief and prevention.		• Results of management systems developed pursuant to §134(i)(3), Title 23 U.S.C. (i.e. CMS in TMAs).
• Preservation of existing transportation facilities.		• TSM and investment strategies to make most efficient use of existing systems.
		• Methods to reduce traffic congestion and to prevent congestion from developing in areas where it has not yet occurred.
• Right-of-way preservation for future projects.	<---->	• Right-of-way preservation for future projects.
• Use of life-cycle costing in the design of bridges, tunnels or pavement.	<---->	• Use of life-cycle costing in the design of bridges, tunnels or pavement.
		• Use of innovative financing mechanisms.
ENVIRONMENT AND QUALITY OF LIFE		**ENVIRONMENT AND QUALITY OF LIFE**
• The overall social, economic, energy and environmental effects of transportation decisions.	<---->	• The overall social, economic, energy and environmental effects of transportation decisions.
• Federal, State & local energy conservation programs, goals and objectives.	<---->	• Federal, state nt local energy goals.
• Effects of transportation policy on land use and development.	<---->	• Effects of transportation policy on land use and development.
• Programming of transportation enhancement activities.		• State water pollution control plans.
• Increased security in transit systems.		
• Effects of all transportation projects, whether or not publicly funded.		----- Denotes identical requirement.

- Linkage to Air Quality: both in its planning and funding provisions, the ISTEA provides a strong linkage to the requirements of the Federal Clean Air Act Amendments of 1990 (CAAA) and thereby strengthens and reinforces the role which transportation needs to play in attaining National air quality standards. According to former FHWA Administrator Tom Larson, "the ISTEA complements the CAAA by providing funding and flexibility to use it in ways that will help us improve air quality through the development of a balanced, environmentally sound, intermodal transportation program."

- Emphasis on Performance: the ISTEA recognizes that preservation and maintenance of the Nation's existing transportation systems is crucial, that resources are limited, and that simply supplying more capacity as the principal strategy for satisfying demand can have significant environmental and societal impacts. Accordingly, the ISTEA requires that states develop pavement, bridge, safety, public transportation, congestion, and intermodal management systems, the primary purpose of which "is to provide additional information needed to make effective decisions on the use of limited resources to improve the efficiency of, and protect the investment in, the Nation's existing and future transportation infrastructure." [23 CFR §500.105]

- Emphasis on Aesthetics: within the Surface Transportation Program (STP)(Title 23, §133, U.S.C.), the ISTEA establishes a 10% set-aside ($2.39 billion over six years) for "transportation enhancement activities" which include: provision of facilities for pedestrians and bicycles; acquisition of scenic easements and historic sites; landscaping and other scenic beautification; historic preservation, control and removal of outdoor advertising, archaeological planning and research; and mitigation of water pollution due to highway runoff. Indeed, a significant aspect of the criteria embodied in the ISTEA is that they imply a planning ethic which goes beyond simple form and function by embracing aesthetics and an implied recognition of the fact that, as Tony Hiss so eloquently says:

> "...our ordinary surroundings, built and natural alike, have an immediate and continuing effect on the way we feel and act, and on our health and intelligence. These places have an impact on our sense of self, our sense of safety, the kind of work we get done, the ways we interact with other people, even our ability to function as citizens in a democracy. In short, the places where we spend our time affect the people we are and can become."

- Emphasis on Safety: for decades, the carnage on our Nation's highways has been one of the on-going tragedies of American life; and every day, millions of city dwellers pay the psychological and emotional price of riding transit systems where personal safety and security is anything but assured. In numerous ways, the ISTEA challenges the transportation community to redouble its efforts to redress these glaring deficiencies. The ISTEA: sets aside 10% of STP funds to eliminate hazards at railway-highway crossings and to identify and correct hazardous locations and conditions which may pose a danger to motorists or pedestrians; requires states to develop Highway Safety Management Systems; cites increased security in transit systems as a criteria to be used in the planning process for metropolitan areas; and increases by more than one-third over previous levels the authorizations for Title II highway safety (§402) and highway safety R&D (§403) programs. All of this underscores the ISTEA's basic premise that it is *people*, not vehicles and facilities, that count.

- Emphasis on Public Participation: one of the cornerstones of the ISTEA is increased public participation in the transportation planning process. Historically, what has passed as "citizen involvement" has been a generally superficial process whereby the people whose lives will be most impacted by a proposed project are haphazardly brought in, usually fairly late in the game, and presented with a Sophie's choice of an eight lane freeway or the politically abhorrent "do nothing" alternative. The intent in the ISTEA is instead to develop the participatory and planning process mechanisms whereby citizens can have at least some chance of understanding, evaluating, and expressing preferences for a meaningful diversity of modal and capital vs. non-capital intensive alternatives in full light of their transportation, environmental, and community impacts.

At their collective face value, these provisions of the ISTEA are a giant step forward in terms of making the transportation planning and investment process more responsive to all the stakeholders in the transportation system. Were these provisions to be followed by state DOT's and MPO's to both the spirit and letter of the law, it would go a long way toward dismantling the historical transportation decision-making architecture which has assigned primary importance - and the financial and human resources to go with it - to capital facilities, and which has viewed Transportation Systems Management (TSM),

Transportation Demand Management (TDM), and other capital non-intensive, performance based strategies largely as marginalia of limited interest to those doing the "real work" of expanding the transportation system.

And yet, all is not well with the ISTEA, for it contains the seed of its own undoing: the National Highway System (NHS). The ISTEA amends §103 of Title 23, U.S.C. and establishes a National Highway System (NHS) the purpose of which "is to provide an interconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public trransportation facilities, and other intermodal transportation facilities and other major travel destinations; meet national defense requirements; and serve interstate and interregional travel." The NHS is to consist of the Interstates, certain urban and rural principal areterials and highways to be proposed by the states (in cooperation with local and regional officials), a strategic highway network important to U.S. defense policy, and highway network connectors providing vehicular access to major military installations.

The ISTEA authorized $21 billion over six years for the NHS, but Congress put the idea of an NHS on probation by postponing the deadline for approving its designation until September 30, 1995. Proponents of the NHS argue that it will:

- Create thousands of jobs by making America more productive and competitive in the global economy;
- "Connect America" by linking rural towns and villages to "the rest of America";
- Make intermodal connections between industrial sites and ports, airports, and other intermodal facilities;
- Increase safety on the Nation's highways;
- Advance U.S. transportation technologies which make the system more efficient and lessen its environmental impact; and,
- Enhance access to job, cultural and recreational opportunities for all Americans.

In short, according to the Highway Users Federation and other NHS supporters, the NHS will provide for economic growth, lessen congestion, improve air quality, increase safety, and provide tourism access.

If the NHS promises such a breathtaking panoply of rewards, is there any reason not to respond to the drum rolls of NHS advocates, embrace the NHS in all its glory, and rush lemming-like into the new golden age of post-Interstate transportation in America?

As it turns out: yes.

TOYS IN THE 'HOOD: TRANSPORTATION PLANNING IN AMERICA

> "It does not belittle them to say that, just as war is too important to be left to the generals, so highways are too important to be left to the highway engineers."
>
> John T. Howard

Thinking about the long term implications of the NHS, it's important for legislators to consider the corporate culture of our transportation institutions and, as importantly, of the predilections of the people in them. Which is a polite way of suggesting that, statutory intent notwithstanding, actual policy and programmatic outcomes will be profoundly influenced by approaches and practices which have over several decades become accepted and which provide the comfortable framework within which professional technocrats carry out their appointed rounds. The important implication is this: *any piece of legislation whose policy vision is based on a behavioral paradigm shift in how investment choices are developed, evaluated and selected will need to include extraordinary guidance to make sure that the vision is not distorted by "best practices" which are ingrained in the institutional mosaic.*

Given the breadth and depth of the impact that our transportation systems have on virtually every person in society and on every aspect of daily life, one might *a priori* think that social critics, political scientists, philosophers, civil rights activists, advocates for the poor, and urban architects and designers would all have played a significant role in shaping our transportation past, present, and future.

Alas, such has not been case. Historically, the surface transportation profession in America has been dominated by engineers and, to a much lesser extent, planners. Lately, involvement by environmentalists and ordinary citizens has assumed increasing importance, but their role has thus far been more as watchdogs rather than as partner-participants.

This is not to suggest that engineers and transportation professionals are some sort of malevolent collective intelligence dedicated to paving over America without regard to the enormous social and environmental costs incurred since the dawn of the Interstate era. Nor does it imply that they are so hell bent for accommodating the automobile that they are unaware of the downside. Hardly; after all, like most everyone else, they are people

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who have families to care for, bills to pay, children to raise, and careers to worry about. It would be unfair to cast them as the villains which have, as expressed by James Howard Kunstler, "turned America's towns and cities into auto storage depots that only incidentally contain other things."

On the other hand, Daniel Patrick Moynihan once observed: "Theirs, admittedly, is an unjustly maligned profession. Nothing in the training or education of most civil engineers prepares them to do anything more than build sound highways cheaply." If this paints the picture with too broad a brush, it can still reasonably be argued that the cadrés of careerists who populate Federal, state and local transportation agencies, both by training and predisposition, tend to be more comfortable with "widgets" (be they intersections, highways, rail lines, whatever) than with the cloudier and more intractable questions of who we are as individuals and how we relate to each other in a society which seems, paradoxically, to be becoming more tribal and more global at the same time.

To further illustrate this point, Figure 1 arrays a continuum of issues which, to a greater or lesser extent, play a role in how transportation policy and investment choices are made. On one end of this range are the very specific (not to say *concrete*), nominally value-free, questions relating to facilities and their immediate transportation-related consequences. At the other end are the more difficult, and ultimately more important, questions which are profoundly influenced by the aggregation of thousands of decisions made over four decades by a corporate culture which only lately has ventured very far at all from the "widget" end of the spectrum.

In the best of all worlds, policy and investment choices would be derivative of basic societal values and objectives translated into a decision-making paradigm which incorporates the widest array of criteria. As any observer of the transportation scene in America knows, this paradigm has been the exception, not the rule. Under the traditional, "ours is ours, yours is yours" approach: the various components of the transportation system are "owned" and operated by various institutional actors who have responsibility for making sure that "their" system is operating efficiently; MPO and state priorities are arrived at separately; facilities-based performance standards (e.g. level of service) are geared to accommodating vehicles; land use decisions are driven by achievement (or lack thereof) of performance standards, thereby encouraging urban sprawl; and users and non-users alike are *assumed* to be the beneficiaries of it all.

FIGURE 1

THE "COMFORT CONTINUUM"

Facility Design & Construction

Congestion Relief

Economic Development

Open Space and Wetlands Preservation

Endangered Species Protection

Air Quality Improvement

Energy Conservation

Urban Form and Aesthetics

Quality of Life

Social and Economic Equity

Community Cohesion

Role of Citizens in a Participatory Democracy

The Social Contract

The practical consequence of all this, absent any meaningful discourse on basic values, is that the Nation's transportation system - especially its network of highways - has quite unintentionally become another, and some would say principal, centrifugal force spinning American society, in Philip Slater's words, "away from the instinctive sense of community that villagers had in the past, moving with dizzying speed toward greater anonymity, impersonality, and disconnectedness."

For several decades, observers of America life have decried the loss of our sense of community, the abandonment of our central cities, the ravaging of our physical and spiritual environments, and the increasingly anonymous, impersonal nature of American life. Some would contend that the neither the automobile nor the system of streets and highways which accommodates it are principal causes of this malaise. At first, this sounds either naive or disingenuous; but on closer hearing, it has an oddly democratic ring to it. "After all," the argument goes, "we're just giving the people what they want, which is to be able to choose where to go, when to go, and how to go."

This "pro choice" rationale pales a bit when held up to reality's mirror. Real estate consultant Charles Lockwood has said that "the Nation that invented the throwaway city is now creating the throwaway suburb," and Slater remarks that, "Our approach to transportation has had the effect of making it easier and easier to travel to more and more places that have become less and less worth driving to." All in all, it's a "choice" which brings to mind the old story of the frog in the pot who would hop out of boiling water but, if the temperature is turned up a degree at a time, stays to its death.

And this is where the connection with the ISTEA comes in. Inducing change in corporate cultures is a slow business at best, especially in the public sector where management's latitude to send unambiguous economic signals to the workforce are extremely constrained. The NHS, left to it own devices - and the devices of its most ardent admirers - runs the risk of continuing the historical tendency to think of transportation in terms of vehicles and the facilities to accommodate them. More important is the risk of continuing the decision paradigm which judges each project on its own merits without regard to the cumulative consequences of a thousand-and-one such decisions made by many people, in many venues, over many years.

The paradigm shift implied by the policy vision of the ISTEA requires a ***National Intermodal Transportation System*** (with all its many subsystems, *including the NHS*) which places *people* at the center of its planning philosophy, and which makes investment decisions responsive to the broadest range of societal values and needs. The only practical way to achieve this is to reinforce the ISTEA's systems approach as spelled out in its planning provisions, and this necessarily implies making NHS investment decisions within that framework.

By contrast, if the NHS proceeds on a "most favored system" basis it risks continuing the philosophical, institutional and political gridlock which pits supply against demand, environmentalists against economic development, and citizens against a transportation system that doesn't work and doesn't care. This is probably the easiest path to take, for it requires only that business continue as usual and we take no institutional or personal chances.

Alternatively, Congress can respond to the challenge and opportunity offered by the vision inherent in the ISTEA. By putting *people and communities* at the top of the transportation agenda, and by enacting the NHS in the context of a ***National Intermodal Transportation System*** as outlined by Secretary Peña, Congress can slice through the Gordian knot of conflict and paralysis which has too often characterized the debate over transportation policy in America. By embracing and reaffirming the ISTEA's vision, Congress can reconcile and rise above the seemingly antithetical agendas which undermine our ability to compete in the global economy and threaten the very fabric of life in our cities and towns. Most importantly, Congress can start to empower the American people to end the decades old slide toward social and cultural isolation, and to start repairing the shredded bonds that have traditionally held society together.

The economic, psychological, and physical barriers that separate city from suburb, that isolate rural towns and villages, and that divide communities, races, and even families from each other and even from themselves - these are the barriers which yield the "McLife" of America in the 1990's. We may all be free to roam the NHS or the information highway, but to what end? Congress must act now so that future generations will have a better chance for more than the depressingly constrained set of options which seem increasingly to characterize the American socio-cultural landscape.

COME 'N GET IT: THE NHS FEEDING FRENZY

"Thus, from the outset, there has been more mileage authorized for the [Interstate] system than anyone knew exactly what to do with."

Daniel P. Moynihan
(*in re* the Interstate System)

"Central states where highways are important have a battle ahead against the East Coast environmentalists to direct Federal dollars to a National Highway System that will be finalized by Congress during the next two years."

Wayne Muri, Director
Missouri Highway & Transportation Department
(1993)

The fear that the NHS could become the next black hole for transportation investment begins with the likelihood that the NHS will, during the Congressional process, metastasize into an even larger and more unmanageable system. Pursuant to the ISTEA, §103(b)(3)(C), Title 23, U.S.C. states that the National Highway System (NHS) "shall not exceed 155,000 miles," plus or minus 15%. Assurances to the contrary notwithstanding, there is reason to worry that there will be irresistible pressure to increase this mileage during the legislative process, and that the resulting focus on high profile new projects will consume scarce financial resources, thereby diverting funds:

- Away from maintenance, rehabilitation, and safety needs, both on and off the NHS;
- Away from urban areas where right-of-way costs, environmental impacts, and community concerns may make project development more difficult; and,
- Away from non-NHS needs, since, without an improbable gas tax increase, fund diversion to the NHS is necessarily a zero-sum game.

"Not to worry," sayeth the NHS' proponents, but a look at the Interstate experience gives

reason for concern, and more recent media accounts of the expectations created by the prospects of NHS designation only serve to underscore that concern.

The political process which culminated in the Highway Act of 1956 resulted in a designated Interstate of 41,000 miles, roughly a 50% increase over what had originally been proposed. Was this increase the result of a carefully thought out planning exercise? Well, not exactly. Moynihan succinctly described the forces at work in his 1960 article "New Roads and Urban Chaos":

> "Introducing a highway program in today's Congress is like letting a tariff bill loose in the old days: the figures go up and up and up. The economic interest in highways affects not only General Motors but also countless numbers of garage owners, automobile dealers, road contractors, real estate developers, and similar large and small businesses throughout the land. Conservatives think of roads as good for business. Liberals think of them as part of the litany of public investment they so love to chant. Plain politicians think of roads as the indispensable means by which the owners of 70 million motor vehicles derive the benefits from what is for most of them the second largest investment they ever make."

Nearly a third of a century later, not much has changed except that we now have almost 200 million motor vehicles in the United States. If money is the mother's milk of politics, as Jess Unruh used to say, the nutritive supplement provided by the political machinery of large highway design and construction contracts makes it all the more likely that the NHS will grow apace.

Simply designating a highway project for inclusion in the NHS is, in an of itself, a seemingly innocuous action. The expectations thereby created, and subsequent political pressures to fulfill those expectations, are something else again. One has only to review the a few of the headlines which accompanied the announcement of the USDOT's NHS recommendations (Figure 2), despite Secretary Peña's effort to emphasize intermodalism and the ***National Transportation System.***

One doesn't have to be cynical or naive to suggest that the genie is just about out of the bottle with respect to the NHS. It's not too late, however, and Congress can put the plug back in by following the recommendations set forth in this paper.

FIGURE 2

ON THE ROAD AGAIN

HEADLINES FROM AROUND THE UNITED STATES PROMPTED BY THE NHS ANNOUNCEMENT

"STATE GETS 1,635 MILES ON U.S. WISH LIST"

"OUTER LOOP GETS BIG BOOST"

"PROPOSED HIGHWAY IS FINALLY ON MAP"

HIGHWAY 126 TO GET PRIORITY FUNDING"

"WEST VIRGINIA FARES WELL IN NEW ROAD PLAN"

"PROPOSED I-69 GETS HIGH PRIORITY FOR ROAD FUNDING"

"EVANSVILLE - INDY ROAD ENDORSED AGAIN"

"CORRIDOR G TO EXPAND"

"I-73 CONGRESS BOUND"

"US50 PUSHED FOR HIGHWAY SYSTEM PLAN"

"CORRIDOR H OPTION URGED"

"HIGHWAY PLANS MOVE A STEP UP LADDER TO REALITY"

"I-73-74 PART OF FEDERAL HIGHWAY PLAN"

"ROUTE 13 ELIGIBLE NOW ELIGIBLE FOR FEDERAL FUNDS"

"RTE. 114 ON PRIORITY FUND LIST"

THE NHS: THE TROJAN HORSE IN THE ISTEA

"Hell is paved with good intentions, not bad. All men *mean* well."

George Bernard Shaw

The ISTEA authorized $21 billion to establish a National Highway System (NHS) consisting of the interstates, certain urban and rural principal arterials and highways to be proposed by the States (in cooperation with local and regional officials), a strategic highway network important to U.S. defense policy, and highway network connectors providing vehicular access to major military installations.

As set forth in the statute, the purpose of the NHS is:

> "To provide an interconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and other major travel destinations; meet national defense requirements; and serve interstate and interregional travel."

So far, so good. But *caveat emptor*, what you see ain't necessarily what you get.

At the risk of stating the obvious, a highway in and of itself is value neutral: it is neither a good nor bad thing. The same can be said of any *system* of highways, such as the NHS. What matters is how the NHS relates to the compendium of economic, environmental, and societal goals envisioned in the ISTEA. What also matters is the ***opportunity cost*** of the investments which the NHS may ultimately require or induce. Absent an offsetting tax increase, a Federal investment strategy which focuses scarce fiscal resources on the NHS will necessarily be to the detriment of other needs which may in fact have a higher payoff in terms of meeting the ISTEA's policy objectives. More specifically, as argued below, it will tend to divert those resources away from those very investments which will have the biggest economic and environmental payoffs.

NHS advocates respond by saying, "Not to worry, the NHS won't result in a new round of standards setting, deficiency determinations, new capacity requirements, and a separate

and unequal classification of NHS routes which will relegate non-NHS needs and opportunities to poor cousin status in the family of transportation investment decisions."

And, truth be told, the provisions in the ISTEA do not, in and of themselves, guarantee such an outcome. The problem lies not in the ISTEA provisions themselves, but in the institutional and political mechanisms which, good intentions notwithstanding, may in fact cause the NHS to mutate into the 155,000 mile "baby-interstate" feared by so many.

Here's how is might work. The devil, as they say, is in the details, so we need to take a few moments to submerge in the *arcana* of the Highway Performance Monitoring System (HPMS) and the not-visible-to-the-naked-eye currents swirling just below the placid surfaces of transportation agencies everywhere.

The HPMS is used by FHWA and state DOT's to assess highway needs to support development of transportation policy and investment strategies. As explained by Elizabeth Deakin of the University of California at Berkeley, "the HPMS is a computerized analysis tool designed to provide information on highway system conditions, expected changes in those conditions, future investment needs, and the impact of alternative investment strategies. It utilizes data and forecasts from sample highway sections along with information on 'minimum tolerable conditions' (also called minimum conditions standards) to determine deficiencies. Design standard tables then are used to determine needed improvements and to estimate their costs." Naturally enough, these then become the investment targets in the decision calculus of state DOT's and public works departments across the land.

This technocratic linkage between conditions, standards, and deficiencies creates an investment algorithm which begins to assume a life of its own in the political arena, since "deficiencies" are always to be abhorred and must therefore be given "priority" when the times comes for allocating scarce resources.

Other forces then come into play which further distort investment priorities:

- New Capacity vs. System Preservation: even in the era of term limits, elected officials have an understandable desire to be "seen" as doing something, so the attraction of cutting ribbons with their associated photo ops is likely to continue

the historical bias toward new capacity; resurfacing a street or increasing service on a bus line just doesn't have the same panache.

- Rural vs. Urban Investment: given right-of-way costs, environmental impacts, community opposition, and the sheer complexity of building new infrastructure in built environments, state DOT's will be inclined to spend NHS money where they can, i.e. in ex-urban areas to support new development, notwithstanding concerns about urban sprawl, and in rural areas, notwithstanding the fact that rural needs relate more to safety than to new capacity. The track record to-date seems to support this contention. According to FHWA Administrator Rodney Slater, 70.1% of all NHS funds obligated through the end of Federal FY92/93 went to rural and non-urbanized areas.

- On-System vs. Off-System Investment in Metropolitan Areas: one serious flaw is in fact contained in the ISTEA planning provisions. Specifically, §134(i)(4) of Title 23, U.S.C. states that:

> "All projects carried out within the boundaries of a *transportation management area* [defined in §134(i)(1) as all urbanized areas over 200,000 population] with Federal participation pursuant to this title (excluding projects undertaken on the National Highway System and pursuant to the bridge and Interstate maintenance programs) or pursuant to the Federal Transit Act shall be selected by the metropolitan planning organization in consultation with the State and in conformance with the transportation improvement program for such area and priorities established therein. Projects undertaken within the boundaries of a transportation management area on the National Highway System or pursuant to the Bridge and Interstate Maintenance Programs ***shall be selected by the State*** in cooperation with the metropolitan planning organization designated for such area and shall be in conformance with the transportation improvement program for such area." [Emphasis added.]

Hence, this provision exempts $54.1 billion, or 35.5% of all ISTEA Title 1 and 3 highway and transit funds, from the "systems approach" to be carried out in light of the 15 factors cited in Table 1. A case can certainly made that preservation of the Interstate system is a National priority and should thus be given most favored

system status. And given the deficiencies extant on the Nation's bridges, singling them out for special treatment may also be justified. But no rationale is apparent for exempting selection of NHS projects from the MPO process in urban areas, and the fact that NHS funds can in theory be transferred to off-system projects is of only marginal comfort since the decision to do so is in the hands of the States. In fact, since there is no requirement at all that any NHS dollars be expended in metropolitan areas, it seems apparent that states can more or less dictate the terms when "cooperating" with the MPO's. This is, perhaps, a useful illustration of the functional difference between a lever and a hammer.

- The Mantle of Safety: it is entirely appropriate that safety has long been one of the highest priorities of transportation agencies throughout the Nation. Although the carnage on our highways and violence on our transit systems is still too high, transportation officials everywhere, particularly at FHWA and NHTSA, can be justly proud of continuing improvements and achievements on this critical issue. Most "safety" projects are just that, and merit support. However, knowing that public officials will generally approve just about anything that is alleged to enhance public safety, clever advocates have always cloaked their projects in safety's holy mantle. Indeed, incantations of the safety mantra echo in statehouses and city council chambers throughout the land like some Gregorian chant whose words are no longer understood but which implies an inviolate mission to render a threatening world "safe." We are assured that the newly minted NHS will not be upgraded to a higher - and therefore more costly - set of design standards; but, of course, the system must be "safe." The unexamined assumption seems to be that these are to be high speed, high capacity routes. In that case, we probably ought to straighten out this section or that, and we'll naturally need a shoulder here, perhaps a median strip over there, and how 'bout a grade separation or two? Thus begins the inexorable process by which Baby Interstate grows up to be a healthy adolescent with a ravenous appetite for Federal dollars.

- HPMS Biases: Deakin's critique of the Highway Performance Monitoring System (HPMS), which concludes that "HPMS appears to introduce significant biases in estimating highway needs, especially for urban areas," is especially noteworthy since "HPMS is being widely used to estimate capital investment needs for the future, and thus to structure discussions of highway policy for the next decades." Especially troubling are Deakin's conclusions that:

> "Because HPMS has no information on network configuration, it cannot take into consideration the availability of alternative routes and paths. Thus, the availability of a parallel facility which could absorb some of the traffic on a congested Interstate is not known by the model; the model will simply assume traffic continues to increase on each facility at the growth rate used. This will tend to lead to overestimation of needs on facilities at or near capacity and to an underestimation of needs on alternative routes".

and,

> "Neither TSM nor transit options are considered as investment options as HPMS is usually applied, even though they would often be cost-effective alternatives. When a capacity problem is detected, the model simply adds lanes or widens the section (or forecasts ever worsening conditions in cases where a constraint on widening has been specified). This would likely result in an overestimation of "conventional" highway needs.

The omission of transit and TSM options and the lack of network information "likely leads to serious irrationalities in needs estimates," according to Deakin, with urban needs being significantly understated and investment needs on major facilities (e.g. the NHS) being overstated. These conclusions about the HPMS are important, especially in light of the most favored system status conferred on the NHS by the ISTEA, because HPMS is an integral part of the technocratic machinery which determines investment priorities.

- **Limits to Public Participation**: in its provisions relating to citizen involvement, the ISTEA apparently assumed that ordinary citizens can act *in loco parentis* to make sure that the adolescent NHS doesn't become too unruly. In theory, the enhanced citizen involvement requirements could serve as an effective check on the proclivity of transportation engineers and planners toward capital intensive, highway oriented solutions.

The reality is, however, that meaningful involvement of community and environmental

groups in the transportation priority setting process is still the exception, not the rule. This is especially true when state DOT's, rather than MPO's, have the lead, as is the case with the NHS. And it must be remembered that while the Clean Air Act has explicit provisions (cf CAA, §304) giving citizens standing to commence civil actions against any governmental agency for alleged violations of the statute, the ISTEA contains no such provisions.

All in all, it must be admitted that the ISTEA's citizen participation provision, although a step in the right direction, are simply an inadequate brake on the momentum of an institutional decision-making vehicle which has been rolling along for almost forty years.

It is the combination of the factors cited above which leads to the concern about the NHS: a corporate culture which is new facility biased; a statutory exemption to the systems approach to planning in metropolitan areas; a technocratic process which tends to overstate highway needs and ignore alternatives; environmental requirements which make project approvals more difficult in urban areas; and a public participation process which - so far - has generally been relegated to the sidelines of transportation's field of dreams.

The result may very well be a giant step backward from the vision of the ISTEA. If tamed, the NHS "horse" can be ridden by advocates of economic development, environmental protection, and community integrity alike. If allowed to run wild, the NHS will become the Trojan horse in the ISTEA, and it will undermine the ISTEA's foundations of system preservation, improving efficiency, planning on a systemic basis, ensuring a fair return to metropolitan areas and small towns, and preserving and improving the environment and quality of life for all Americans.

THE NHS AND ECONOMIC COMPETITIVENESS: MISSING THE MARK

> "The National Highway System was not intended to fully integrate the demands of nationally strategic elements of passenger travel and freight movement by air, rail, water, pipeline or transit."
>
> Federico Peña

Proponents of the NHS who see it as a higher order system exude enthusiasm about how it will create jobs, spur economic development, and enhance America's competitiveness in the global economy. In addition, they contend, the NHS will eradicate congestion, clean the air, improve safety, advance technology, provide tourism access, and even renew American heritage.

Sounds too good to be true; and, unfortunately, it's not.

Of course, any time you spend $21 billion (the amount authorized in the ISTEA for the NHS), you can't help but create some jobs, and without doubt many of the projects which are thereby funded would have some positive impacts. After all, even a blind man hits the target now and then if he throws enough darts.

But that begs the question which Congress ought to be asking of the NHS; namely, is the *investment decision process* for the NHS as set forth in the ISTEA likely to produce better results than would be the case if the NHS did not enjoy its most favored system status? In other words, what are the opportunity costs of proceeding forward with the NHS as currently envisioned by its advocates?

There are a number of reasons to believe that the NHS *investment process* will be wide of the mark even when judged on narrow economic terms, let alone in the context of broader societal and environmental goals.

Congestion Relief: if we are to believe that the NHS will slay the dragon of congestion, the case must be convincingly made that the decision algorithms which will produce NHS investments are somehow superior to the ISTEA's metropolitan and state planning and management systems processes. In fact, just the opposite outcome seems likely. In complex systems, be they mechanical, electrical, biological, or

institutional, solutions derived from narrowly focusing on specific subsystems rarely result in global optima. Especially in urban areas, the NHS is not a stand alone system, but rather an integral and non-separable part of a dynamic multi-modal network, and transportation decision-makers need as much flexibility as they can get to fine tune and improve its performance.

To the extent that the NHS results in new suburban and ex-urban areas being opened up for development, short-term congestion relief may occur in selected corridors while the system adjusts to a new equilibrium. But experience shows that this is a transitory benefit at best, with the longer term result being more VMT, more congestions, more pollution, more sprawl, and more economic losses associated therewith.

Jobs: the expenditure of twenty-one billion NHS dollars will, in and of itself, create a certain number of jobs; and, from a macroeconomic standpoint, whether those dollars are spent in urban or rural areas doesn't make much difference. And spending the same $21 billion on, say, rail transit or non-NHS highway projects would have roughly the same direct job creation impact.

Spending on the NHS will have a *comparative advantage* for job creation if, and only if, the productivity gains to the economy are greater than would be the case under alternative investment strategies and scenarios.

The arenas where transportation investments are likely to have the largest impact in this regard are in the areas of congestion relief and intermodal connections.

Let's take congestion first. According to statistics published by the Federal Highway Administration, most highway VMT occurs in urban areas (60.7%). Further, urban highways are more congested than rural highways; for example, 84.4% of all highway mileage (excluding local) classified by FHWA as "congested" is in urban areas. Putting the two together, a whopping 93.3% of all VMT which occurs on congested highways takes place on urban highway systems. Whether it's movement of people or freight, the economic losses in the United States due to congestion, calculated to be as high as $47 billion annually, translates directly into jobs. The NHS can claim to having a comparative advantage for creating jobs only if it focuses investment in urban areas; and, as suggested elsewhere in this paper, NHS money is likely to be directed away from, not toward, urban areas.

As discussed more fully below, the same argument applies to intermodal connections. The important question is not how many tons of freight are moving over how many miles of uncongested rural highways. Rather, what matters is where the economic losses from poor intermodal connections occur, and the conclusion is very much the same: the NHS seems unlikely to *focus* investment where the real problems are, and it is only the economic productivity benefits which would derive from such a focus that would lead to creation of jobs.

On the jobs criterion, then, the NHS appears to be a loser.

Intermodal connections: fundamentally, the NHS is a geographically diffused public works program, not a focused economic investment strategy. The claims being made for the NHS with regard to connecting the American economy to the world marketplace are premised on the belief that turning two lane country roads into four lane country roads, or building four lane country roads where none now exist, is the key to meeting the ISTEA's vision of a ***National Intermodal Transportation System*** which enhances our economic competitiveness. This is wrong on several counts.

First, logic suggests that economic losses associated with inefficient goods movement are the result of poor intermodal connections occur principally in the Nation's metropolitan areas. Further, market distortions are caused by uneven public subsidies that give certain modes a competitive advantage over other modes (e.g. rail and barges) which may be more cost-effective (and therefore better for the economy) for the long distance moving of freight.

Second, it is no secret that the American economy is increasingly services oriented, and the delivery of those services, as well as the economic losses caused by a malfunctioning transportation system, are concentrated where people live, i.e. in the Nation's urban areas.

Third, and perhaps most important, the notion that simply adding new capacity (assuming the resources were available) will somehow eradicate economic losses in the freight sector is based on an antiquated and by now largely discredited view of intermodalism which is static in nature and which is largely being supplanted by an approach dependent

on partnering arrangements, information systems, and *operations* (as opposed to facilities) based strategies. This new approach, which is increasingly being embraced by shippers, carriers, and operators of intermodal freight facilities, holds that "intermodalism" is the philosophy and practice in both the public and private sectors of taking a systemic approach to the planning, funding, implementation, and operation of transportation systems, services and strategies with the goal of minimizing the end-to-end economic, social and environmental cost of movement of people, goods, and information.

US DOT Secretary Peña appears to have embraced this concept by stating:

> "The National Highway System...was not intended to fully integrate the demands of nationally strategic elements of passenger travel and freight movement by air, rail, water, pipeline or transit. A ***National Transportation System*** will help us assess where we are, anticipate where we are going, choose wisely among our options, and make investments that get us to our destination. This approach to investment planning will enable us to better allocate limited transportation budgets. It will help us maximize the efficient use of existing transportation systems. And it will enable us to assess the likely impacts of proposed investments on social, economic and environmental goals much more accurately than we can do now."

The Secretary would seem to believe that intermodalism is more than an idea or ideal, and it is certainly more than lines on a map or even a list of facilities. Rather, it is a way of doing business. As such, it is an integral part of the core philosophy and practice of institutions and individuals professing to embrace its precepts.

The NHS, if it is subsumed and integrated into an NITS, can play a positive role in helping make America more competitive. Left to its own devices, however, the NHS will likely result in a continuation of the historical trend toward a disjointed and dysfunctional mosaic of transportation sub-systems which, in the words of Secretary Pena, "have lost sight of what our transportation investments are supposed to do." Because of the need for a *focused* rather than broad brush approach to improving intermodal connections, Congress should explicitly reemphasize the need for MPO's and states to consider targeted investments on intermodal facilities of regional and national significance.

A DIGRESSION ON IVHS: A TWO-EDGED SWORD

> "IVHS could radically reshape transportation in the 21st Century along the lines of efficiency, improved environmental quality, and more livable communities."
>
> David G. Burwell

Much has been made in the past few years as to the possible import of Intelligent Vehicle-Highway System (IVHS). Part B of Title VI of the ISTEA, the "Intelligent Vehicle-Highway Systems Act of 1991," establishes a program to "research, develop, and operationally test intelligent vehicle-highway systems and promote implementation of such systems as a component of the Nation's surface transportation systems." The statute specifies certain goals for the IVHS program, including:

> "(1) The widespread implementation of IVHS to enhance the capacity, efficiency, and safety of the Federal-aid highway system and to serve as an alternative to additional physical capacity of the Federal-aid highway system."
>
> and,
>
> "(2) The enhancement, through more efficient use of the Federal-aid highway system, of the efforts of several States to attain air quality goals established pursuant to the Clean Air Act."

Other goals relate to increasing safety, reducing the environmental, economic, and societal costs of congestion, establishing an IVHS industry in the United States, and enhancing U.S. economic competitiveness.

Thus, what may be an inherent tension between system capacity and environmental objectives is clearly extant at the very foundation of the IVHS program. The ultimate result, as with the National Highway System, will depend very much on the strategic vision that IVHS proponents have and the means by which they pursue that vision.

A "vehicle-highway" vision might emphasize the *congestion relief and capacity enhancement* potential of IVHS, focusing on increasing the ability of *facilities* to

accommodate more *vehicles*. This would be complementary to a vision of the NHS as a stand-alone, "higher order" system which warrants special attention, special standards, targeted funding, and, in metropolitan areas, something of an exemption from the multi-modal systems approach which is otherwise established by the planning provisions of the ISTEA.

An alternate, "customer-oriented" vision would see IVHS as an opportunity to harness technology to empower *people* by providing access to job, service, cultural and recreational opportunities and needs, and by helping to address questions of social equity, environmental quality, and community cohesion. This vision is consistent with the ISTEA policy mandates, and would help to reinforce and actualize a ***National Intermodal Transportation System*** of which the NHS is an integrated component.

Which of these visions is likely to eventuate? As with the NHS, it may be too soon to tell, but early indications give reason for concern. First, the very name itself, Intelligent *Vehicle-Highway* Systems suggests a kind of "What's wrong with this picture?" question, one possible inference being that the *raison d'être* of IVHS is to make the world safe for the automobile. *Intelligent Citizen Access Systems*, or some other name reflecting an underlying philosophy oriented toward people rather than toward vehicles and facilities, would be more appropriate if the second vision articulated above is to hold sway.

Another concern pointed out by Burwell is that the IVHS "community" has thus far been "dominated by vendors of IVHS hardware and software who appear to assume that, because IVHS is being developed as a public-private partnership, the public agencies will buy whatever they produce." Indeed, IVHS appears to be on the verge of becoming the transportation sector's equivalent of the military-industrial complex, pursuing technology for technology's sake in a harmonious but perhaps myopic partnership between purveyors of widgets, state DOT officials and local public works directors.

Burwell calls for a "benefit-nested" approach to IVHS, wherein "the full range of benefits mandated by the ISTEA have claims on being the "business of transportation," and suggests that the committee structure of IVHS America might thus be reconfigured along lines of benefit - Access, Environment, Equity, Safety, Competitiveness, etc.

The choice between these visions of IVHS is, from philosophical and policy perspectives, analogous to the choice which Congress and the transportation community faces with regard to the National Highway System. Again, quoting Burwell:

> "A struggle looms over the heart and soul of the IVHS program. What are its objectives? Who benefits? Who pays? And who decides? The answer to none of these questions is clear, but ISTEA, with its broad, multi-objective mandate, makes it clear that these questions are too important to be left to the vendors of IVHS systems alone."

> "The environmental vision of IVHS portrays an efficient and integrated transportation system where IVHS technologies provide constant, real-time data on system performance against a variety of societal objectives, where access to transportation is fairly distributed across all income and social levels, where individual choice of mode is maximized, and where pricing signals are applied to internalize costs and discourage waste. With the level of public investment the IVHS industry is requesting, we can demand no less."

In addressing policy issues associated with the NHS, Congress should take the opportunity to clarify the direction of the IVHS program along the lines suggested here. IVHS program activities should be reoriented to strengthen US DOT's overall transportation modeling and related data collection activities and to support IVHS technologies which will help *manage* growing demand for automobile use, rather than stimulating greater dependence on the automobile. In contrast to its current emphasis on development and testing of individual technologies, the IVHS R&D program should focus on bundled IVHS technologies evaluated in the context of real world costs and benefits which are broadly, not narrowly, construed.

Finally, quite apart from contentious modal and air quality conformity issues, and while questions about IVHS' environmental implications get sorted out, Congress might be wise to put a special emphasis on development and deployment of IVHS technologies which unambiguously relate to user and non-user needs pertaining to safety and security of transported people, goods, and information. There is a clear and present need for technologies such as collision avoidance, transit patron security, bicyclist vehicle-warning devices, emergency notification/warning, vehicle-assisted driver control,

and innovative devices to reduce the incidence of traffic accidents related to substance impaired driving. What matters is not the mode, but the objective of making all facets of the ***National Intermodal Transportation System*** safe and secure for users and non-users alike.

By creating an Intelligent Safety and Security Program (ISSP) under the IVHS umbrella, Congress could help ensure an IVHS focus that is consonant with the broader ***NITS*** vision and, at the same time, protect the system development momentum which FHWA, FTA, IVHS America and the private sector have generated in recent years. Just as important, Congress would be sending a clear and unequivocal signal that it is life, not widgets, which are important in the final analysis.

TWO STEPS FORWARD, NO STEPS BACK: ISTEA AND THE NITS

> "It is time to roll up our sleeves and start work on a National Transportation System that will realize the promise of the ISTEA and strengthen America's awareness of and commitment to transportation investment."
>
> Federico Peña

Secretary Peña is right.

This paper has examined the long range implications of the proposed National Highway System in light of the policy vision of the ISTEA's authors and in the context of the institutional and political framework within which the NHS provisions of the ISTEA will be carried out. The inescapable conclusion is that in considering legislation implementing the NHS provisions of the ISTEA, Congress should take care to look beyond the extraordinary claims of NHS advocates and to be mindful that the very heart and soul of the ISTEA's vision is at risk.

Indeed, Congress is facing two fundamentally different choices.

One option is to embrace the concept of the NHS as a separate and unequal "most-favored system" which will become the driver of transportation policy and investment decisions far into the twenty-first century, which will continue the culture of focusing on facilities and vehicles instead of on people, communities, and a synergistic balance between economic development and the environment, and which will undermine, perhaps fatally, the ISTEA's landmark vision of a single, integrated ***National Intermodal Transportation System*** responsive to the complete spectrum of our citizens' needs and aspirations.

Suggestions that Congress can "do the NHS now and get to the NITS 'vision thing' later" are disingenuous at best; the NHS Trojan horse will be out of the barn, off the ranch, and galloping across our urban and rural landscapes for a long, long time before Congress has another real chance to rein it in. It's worth noting that thirty-five years elapsed between the start of the Interstate era and the passage of the ISTEA; can we really afford to continue down the same road for another thirty-five years?

Fortuitously, there is another option; and, as is argued above, it creates a win-win result which is good for the economy, good for the environment, good for communities, and good for people. That option is to take two steps forward, and none back, by consolidating the gains of the ISTEA by forging a strong and lasting bond between the ISTEA's Declaration of Policy and a ***National Intermodal Transportation System.***

To accomplish this objective, Congress should consider the following recommendations.

1. NITS, not NHS: Congress should adopt a National Intermodal Transportation System, not just an NHS.

2. Project Selection in TMA's: In urban areas over 200,000 (i.e. the ISTEA's *Transportation Management Areas*), NHS and Bridge project selections should be selected by the MPO in consultation with the State and in conformance with the transportation improvement program for the area.

3. Suballocation to Transportation Management Areas: To give metropolitan areas a dependable and significant source of funds to address congestion and multimodal needs, a significant portion of each states NHS funds should be suballocated to TMA's. The greatest leverage for addressing the macroeconomic drag due to congestion and poor intermodal connectivity is in the Nation's urban areas; over 80% of the population lives and 60% of the VMT occurs in urban areas. Moreover, over 70% of urban interstates, over 60% of other urban freeways and expressways, and over 40% of urban principal arterials are reported by US DOT as being congested; the comparable figures for rural areas are 21.5%, 8.0%, and 6.2%.

4. Emphasis on Rural Safety: To give states enhanced ability to address safety problems in rural areas, the STP 10% safety set-aside should be matches by a 10% NHS set-aside in each state. Congestion is not, relatively speaking, the problem in rural areas, but safety clearly is. According to the US DOT, fatality rates in rural areas are twice those for urban areas, and the absolute number of highway fatalities in rural areas is nearly 30% above that for urban areas, this despite the fact that less 20% of the population lives in those areas. Just as *targeted investment* is needed to address economic competitiveness problems, so also is it needed to address rural safety problems.

5. A Dynamic NHS (State Redesignation): The ISTEA requires the Secretary of Transportation to designate all urban areas over 200,000 as *Transportation Management Areas (TMA's)* [§134(i)(1), Title 23, U.S.C.], and further requires MPO's, in cooperation with the states [§134(a)], and with the participation of all interested parties [§134(g)(4)], to identify an "integrated Metropolitan Transportation System" (MTS) [§1024(g)(2)] which "will function as an ***intermodal transportation system*** for the State, the metropolitan area, and the Nation." [§134(a)]

   It logically follows, then, that the NHS should be kept fluid while MPO's and states work together to develop the Metropolitan Transportation Systems as

required in the ISTEA. A Congressionally designated NITS (or NHS, if it comes to that) should be presented to the states as a *recommended* designation which would not be finalized until the state, in partnership with the MPO's, has fully completed its state transportation plan pursuant to §135, Title 23, U.S.C. Since ISTEA strengthens the planning process at both the statewide and MPO level, it is only logical that the NITS/NHS designation be an outcome of those processes, not arrived at independently.

6. Focus on Intermodalism: Because freight movement problems are concentrated in urban areas and on off-system rural roads, a program of strategic investment in Intermodal Projects of National Significance should be established to promote global competitiveness. ISTEA stresses the importance of intermodality, but few resources have been made available by states or MPO's to enhance intermodal connectivity. This program should be funded by dedicating a portion of the ISTEA's NHS funds. This approach is consistent with the ISTEA's set aside of 10% of STP funds for safety and enhancement projects.

7. Emphasis on Maintenance: Either a substantial percentage of NHS funding should be reserved for maintenance and rehabilitation, or states should be required to demonstrate through their ISTEA required management systems that their physical assets are maintained to at least "fair or good" conditions before NHS funds are spent on new capacity or capacity expansion. US DOT reports that while over 60% of the Nation's interstate system is in good condition, urban and rural arterials are much worse off. Just as the Interstate 3R and 4R programs resulted in improved conditions on the system, it would be unwise to let the NHS become a "build" system when the clearly defined need is for better maintenance of the Nation's pavement, bridges, and transit systems. It is only good business sense to preserve and protect vital capital assets before expensive and unsustainable expansion programs are undertaken.

8. IVHS Safety and Security Program: Congress should put a special emphasis on development and deployment of IVHS technologies which unambiguously relate to user needs pertaining to safety and security of transported people, goods, and information. This would include technologies such as collision avoidance, transit patron security, bicyclist vehicle-warning devices, emergency notification/warning, vehicle-assisted driver control, and innovative devices to reduce the incidence of traffic accidents related to substance impaired driving. By creating an Intelligent Safety and Security Program (ISSP) under the IVHS umbrella. Congress could help ensure an IVHS focus that is consonant with the broader ***NITS*** vision. The objective of the ISSP would be to make all modes of the ***National Intermodal Transportation System*** safe and secure for users and non-users alike.

9. Livable Communities: Part of this analysis has been premised on the notion that the impact of transportation decisions on people and communities would be more benign if only those same people and communities were involved in the process in a contributory, rather than confrontational, manner. But institutional and personal behavior is mostly a matter of habit, and old habits die hard. Although the ISTEA significantly enhanced the public participation aspects of the transportation planning and decision-making

process, that is only a first step toward forming a lasting, amicable, and productive partnership between state DOT's, MPO's, citizens, and other public and private entities who have a legitimate stake in policy and investment outcomes. Simply put, transportation agencies and professionals need to get into a *partnering habit* whereby all the stakeholders in our Nation's transportation systems are given ample opportunity to be at the table.

A substantial barrier to any of this happening is simply the belief, conscious or not, that it can't be done, that nothing meaningful will result, and that it's all just a waste of time. To break down that barrier, Congress should consider establishing a ***Livable Communities Partnership Program,*** funded from the Highway Trust Fund, which would direct resources to innovative efforts to form transportation partnerships which involve a diverse array of stakeholders and which provide a level playing field for consideration of both traditional transportation goals (congestion relief, mobility, access) and other goals relating to land use, community livability and vitality, environmental protection, security and safety, energy conservation, and economic development and sustainability.

Examples of such partnerships might be: transit agencies, cities and housing providers working together to develop affordable housing near transit stations; technology companies, state DOT's and law enforcement agencies working together to develop and deploy devices to enhance safety and security; and MPO's and local business and community groups working together to reconfigure and "civilize" the relationship between neighborhoods and commercial development.

CONCLUSION

ISTEA AND THE NITS: TWO STEPS FORWARD, NO STEPS BACK

> Freedom is not absolute, either for individuals or for nations, and much is determined by forces beyond their control, by events of the past, by accident, or by chance. At any given moment in time the margin of freedom left them may seem so small as to make it hardly worthwhile to exercise their will one way or the other. But the narrow margin of today becomes the foundation of the broader possibility of tomorrow. Over time the margin of freedom - the impact of will upon the possible - expands geometrically The decision of today makes possible, or forecloses, ten decisions of tomorrow."
>
> Paul H. Nitze
> *From Hiroshima to Glasnost*

Each day, every man, woman, and child in America is affected in some way by the Nation's transportation systems. Auto drivers and their passengers, bus and rail passengers, bicyclists, truck drivers, pedestrians: anyone who wants to go anywhere for any reason finds his or her opportunities - and limitations - dictated to some degree by whether and how the Nation's transportation systems provide safe, efficient, and effective means of mobility and access.

The economic health of the Nation depends on its transportation systems. Shippers and receivers of goods and providers and users of services are all impacted by the costs of transportation. The affordability of goods and services to consumers, our ability to compete in the global marketplace, the profitability of U.S. firms, and job opportunities for millions of Americans are all enhanced by efficiently functioning transportation systems. Manufacturers, distributors, and retailers alike depend on efficient movement of goods and services to compete and remain profitable. And consumers pay the hidden cost of transportation in the goods they buy and the services they use.

In the post-Cold War era, National security and economic security are inextricably linked. Our Nation's ability to lead and provide a secure future for future generations of Americans is thus dependent upon transportation systems that work and work well.

Even "non-users" of the transportation system are affected in important ways. The very air we breathe is severely and continuously impacted by these same transportation systems. Cars, trucks, and buses contribute over 60% of the pollution that fouls the air in our urban areas. Economic, recreational, and cultural opportunities are not equally accessible to all citizens because of transportation-related impediments (real or perceived).

By and large, transportation is not front page news. Indeed, a perfectly functioning transportation system is one that goes basically unnoticed. It is only when problems occur - an especially congested morning commute, a bus that doesn't come, a shipment that arrives late - that people get a glimpse of the pervasive impact that transportation has on their lives. Contrary to popular perception, the cumulative weight of that impact is mostly a result of the usual - *not the unusual* - events that transpire on the Nation's transportation systems, 24 hours each day, 365 days each year.

Seen in this light, the quality of life enjoyed by Americans is critically dependent on the Nation's transportation systems. The owners and operators of those systems affect more Americans more directly and more often than probably any other government or private sector entities. In a hundred ways both obvious and subtle, our transportation system and the access (or lack of it) that it provides vitally empowers or constrains the American people. If we to have a culture deeper than commerce, one thing we ought to do is to demand that our transportation decision processes be made to ask who we are and what do we want our society to be.

This is why the issues raised in this paper are important. At heart, the debate about the National Highway System is not about concrete, it is about values; it is not about traffic, it is about communities; it is not about going hither and yon, it is about the social and cultural fabric of America. For forty years, American cities and towns have had to live with the unintended consequences of transportation policies not guided by concepts of community, equity, and quality of life, but rather driven by a decision-making paradigm which unconsciously assumed, *a priori*, that transportation is somehow a value-free instrumentality of people's desire to get from A to B, no questions asked.

Philip Slater said, "If a lot of people complain about the quality of life in a society,

it seems reasonable to assume that something is wrong with it," and any survey of life in urban and rural America cannot help but conclude that transportation, for all the economic benefits it may have brought, has played no insignificant role in the cultural malaise and spiritual isolation suffered by so many Americans. Freedom to travel is a fundamental Constitutional right in our democratic society. But this freedom has combined with our cultural fixation on individualism and a transportation paradigm built on vehicles, not people, to yield communities where once familiar patterns of human interdependence have been forgotten, where a higher and higher percentage of interpersonal contacts are abrasive, and where the skills - and even desire - for cooperation among people have atrophied to the point of nonexistence.

Are automobiles and highways to blame? Not in and of themselves, but it doesn't require much insight to realize that transportation policy in America has not done much to reverse or eliminate the undeniable side-effects of our addiction to personal mobility.

The ISTEA was an important first step in that direction, but it was only the first step in a very long journey. That is why the debate over the NHS matters so very much. Congress, and the Nation, have a crucial choice to make, and the only one that makes sense - for our economy, for our environment, for our communities, and for our people - is to civilize and democratize the NHS by making it part and parcel of a **National Intermodal Transportation System.**

The ISTEA and the NITS: two steps forward, no steps back.

What life have you if you have not life together?
There is no life that is not in community,
And no community not lived in praise of God.

And now you live dispersed on ribbon roads,
And no man knows or cares who is his neighbour
Unless his neighbour makes too much disturbance,
But all dash to and fro in motor cars,
Familiar with the roads and settled nowhere.
Nor does the family even move about together,
But every son would have his motor cycle,
And daughters ride away on casual pillions.

And the wind shall say: "Here were decent godless people:
Their only monument the asphalt road
And a thousand lost golf balls."

Can you keep the City that the Lord keeps not with you?
A thousand policemen directing traffic
Cannot tell you why you come or where you go.

When the Stranger says: "What is the meaning of this city?
Do you huddle close together because you love each other?"
What will you answer? "We all dwell together
To make money from each other"? or "This is a community"?
And the Stranger will depart and return to the desert,
O my soul, be prepared for the coming of the Stranger,
Be prepared for him who knows how to ask questions.

T.S.Eliot
Choruses from "The Rock"
(1934)

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